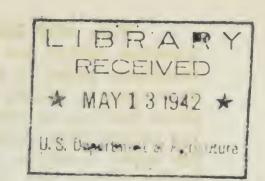
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### The Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D. C., May 1, 1942

NEED RAIN IN EAST; WEATHER FAVORABLE ELSEWHERE. Weekly Weather and Crop Bulletin, April 29: The outstanding features of recent weather include persistence of abnormal warmth over most agricultural areas; development of droughty conditions in Eastern States, and continuous rains over the western Plains and Southwest. Vegetation in general is beginning to need moisture badly in the Atlantic area from Pennsylvania and New Jersey southward and there is shortage of domestic water supplies in some areas. The forest fire hazard has become great with many reports of fires already burning. The droughty area includes nearly all sections from Ohio, eastern Kentucky, and central Tennessee eastward and some south Atlantic districts. Rain is needed in much of the Lake region.

In central-northern sections, droughty conditions of a month's duration have been largely relieved, especially in Minnesota. In most other areas soil moisture is ample; excessive in a considerable southwestern section. There were destructive storms and local flooding in the Southwest with much lowland inundated and heavy soil erosion; a serious flood threatens the upper Rio Grande Valley. Farm work made good progress generally, except in the wet Southwest. In California, rains improved ranges and dry-land crops and reduced need for irrigation in the south. Better moisture improved the cutlook in the northwestern Great Plains.

While rain would be helpful for winter wheat in the more eastern States, conditions continue generally favorable and the crop made satisfactory advance. In the Ohio Valley, some lowland wheat, previously yellow, shows improvement. In the western belt growth has been rapid. Seeding of spring wheat progressed rapidly and is nearing completion in most of the belt.....Corn planting made good progress, being reported locally as far north as southern Pennsylvania, and in the interior begun unusually early in all sections of Iowa. However, seeding progress is slow in the southern half of the Mississippi Valley..... Slightly above normal warmth prevailed in the Cotton Belt; rainfall was again heavy in most of the western half, but east of the Mississippi River the week was largely fair.

MEXICAN FOOD COOPERATIVE. Consumers' Guide, May 1: A new sight in Mexican markets is the food cooperative, sponsored by the government. To reduce the cost of living, cooperatives may purchase foods from the government, at less than prevailing prices, and then re-sell cheaply to cooperators. Some privately operated stores are allowed to participate in the plan.

U.S. GETS CANADIAN BEEF. Canada is short of beef this week while Canadian cattle are being butchered for consumption in the United States. Immediate cause is extra heavy April exports of Canadian cattle under Washington's second quarter import quota. Primary reason is the Canadian price ceiling on meats, which prevents packers in the Dominion from paying prices high enough to hold adequate supplies of beef cattle at home. For weeks Canadian livestock shippers have been gathering beef cattle at border points for shipment to the United States under the second quarter quota. The resultant shortage for home consumption worries Ottawa. Remedial measures have been proposed but ruled out. Price Ceiling Chief Donald Gordon has submitted a remedy of his own to the Ottawa government but its terms are not known.

EFFECTS OF WAR ON PACKAGING. Business Week, April 25: The impact of war on packaging was evident at the American Management Association's 12th annual Conference and Exposition on Packaging, Packing, and Shipping in New York recently. Some of the war impact is direct, as in the transformation of "wire goods," normally used for merchandising display, into husky welded-wire baskets for carrying shells, fuses and bombs through production; in spiral-wound fiber cans used not only in standard sizes to take up some of the tin container shortages but in magnified sizes to transport anti-aircraft and 75-mm. rifle ammunition to the very fighting fronts; in fiber cartons, of about the size to carry a large lampshade, to protect a transparent plastic "blister," under which a machine gunner will do his stuff, until it can be assembled in his plane.

More of the war impact is indirect: coffee packed in bags or glass instead of tin; photographic film and paper packed in tinted wax paper instead of foil; potatoes in paper, not burlap, bags; machinery and large electrical appliances in combination wood and fiberboard crates that weigh 20% less than all-wood crates; bulk goods, either wet or dry, in wooden barrels and impregnated fiber containers instead of steel drums.

TO STUDY FOOD DEHYDRATORS. Food Industries, April: Steps are being taken to develop a dehydrates specially suited to use by canners and other food manufacturers whose operations may be curtailed because of the tin conservation order or other restrictions. The WPB Food Supply Branch invited representatives to meet in Washington to discuss the possibilities of developing such a drier. A committee organized at the meeting agreed to employ A.A. Noel, who will take leave of absence from the Department of Agriculture to supervise the building of two types of dehydration of meat. If the experiments are successful, their results will be made available including technical data and blueprints, to anyone interested.

TRICYCLE QUALITY CONTROL. Food Industries, April: Inspectors would have to walk the equivalent of the distance around a city block to check the instruments on the battery of ovens in the Oakland, Calif., plant of Loose-Wiles Biscuit Co. So the tour is made via tricycle. This battery of ovens is said to be the world's largest.

SHELTER BELT TO BE UNDER SCS. Country Gentleman, April: The Prairie States Forestry Project, known as the Shelter Belt, will pass from the Forest Service to the Soil Conservation Service on July first this year. Appropriations have been made for the SCS to take over and carry on the project. The Shelter Belt is generally regarded in Washington as a notably successful experiment. The Forest Service, it is felt, has laid a sound foundation and Soil Conservation is expected to carry on much along present lines. The need for co-ordinating work, so that it can be performed by agencies already operating in the field, is the chief reason given for the shift.

BRITAIN SUBSIDIZES FOOD SUPPLIES. Business Week, April 25: London has resorted to extensive subsidizing of food supplies to hold down the prices of essential foods and help keep the cost-of-living index, to which many wage contracts are linked, from rising too sharply. First wartime food subsidies came in January, 1940, covering sugar and bacon. By February, these subsidies--nearly half of which were spent to keep the price of bread down--amounted to 57,000,000 pounds a year. By April, 1941, they had soared to 100,000,000 pounds., and now, despite growing lend-lease food deliveries, they are reported to be running at the rate of nearly 160,000,000 pounds a year and cover most of the major food items included in the cost-of-living index. Subsidies are not confined to rationed goods. Neither bread nor potatoes are rationed but both are heavily subsidized.

MOST FARMERS GROW VEGETABLES FOR HOME CONSUMPTION. Vegetable Grower, Buyers Guide 1942: About 79 percent of the 6,096,799 farms enumerated by the recent census reported farm gardens growing vegetables for consumption on the farm only—an average of \$44 worth per farm. Ten years before the average production was estimated at \$52 per farm for nearly 450,000 fewer farms with gardens. Value of vegetables grown by the  $7\frac{1}{2}$  percent of all farmers averaged \$432 per farm in 1939 compared with \$44 for the farm-garden growers with no surplus for sale. The figures of ten years before are \$483 for the commercial growers and \$52 for the farm-gardeners.

TEA SUPPLIES FOR U.S. Consumers' Guide, April 15: Government has ordered supplies to wholesalers limited to 50 percent of the amounts handled in the same period in 1941. Presumably retailers and consumers, in turn, will also get no more than half the amounts they were able to buy last year. No tea will be packaged in amounts larger than 4 ounces, and no tea balls may contain more than on-tenth of an ounce. About 3/4 of a pound of tea per person a year is brewed in American teapots, compared with 14 pounds of coffee per person that go into our coffee pots. At the rate of 200 cups to a pound of tea, that's about 150 cups a year for each of us. British tea drinkers in prewar years brewed almost 3 ounces of tea a week per person, or nearly 9 pounds a year. And today, with tea rationed, they get 2 ounces a week per person or 6½ pounds a year.

EARM EQUIPMENT INDUSTRY GETS A-1-A PRIORITY RATING. Implement & Tractor, April 25: An A-1-A preference rating, the same given on army and navy contracts, was granted manufacturers of certain types of farm equipment last week in an effort to speed production on machinery needed by farmers. The implement and tractor industry previously operated under an A-3 rating. The revised rating was ordered by the War Production board to give the farm machinery makers materials which could not be obtained with sufficient speed under A-3. The A-1-A rating will be available until June 30.

The rating may be applied only to the manufacture of specified equipment, attachments and repair parts as follows: planting, seeding and fertilizing machinery; plows and listers; harrows, rollers, pulverizers and stock cutters; cultivators and weeders; harvesting machinery; wagons and trucks; complete spraying outfits; farm elevators; poultry farm equipment, tractors, and miscellaneous farm machines and equipment.

VICTORY GARDEN SHOWS. Florists Exchange, April 25: A Victory Garden Show movement is under way. A national committee has been formed, which will advise communities through regional groups. Trade and other organizations are behind the plan. The Victory Garden Show movement is already under way in England, the object being to stimulate greater interest in food production and to raise money for the Red Cross. In 1940, England had 230 victory garden shows; last year there were held 350 such shows. This year it is hoped to organize 1,000 shows.

HORSE FLESH SOLD IN BRITAIN. Business Week, April 25: There is nothing new about the sale of horse flesh in Britain but nowadays with strict rationing of meat (approximately 18 oz. per person, weekly) unrationed horse flesh is being purchased in greater quantities than ever before. Most of it is sold—at  $15\phi$  a 16—for the feeding of pets. There are some sales for human consumption, and the meat sold for such use is priced at about  $25\phi$  per 16.

SANITATION IN DAIRY EQUIPMENT. Food Industries, April: After the war it looks as if the unsanitary conditions which have existed with timplated cans—such as open seams, rust spots and the more or less putrid odors arising from these, along with the expense of retinning the cans about once a year—may vanish. We will have no plated cans but a hard aluminum alloy of magnesium aluminum silicide from which a can will be made by spinning so that there will be no seams. It will be approximately one—third of the weight of the present one and in all will cost only about \$1.50 more than the present can. This will make it a little cheaper than the tinned iron can after the first retinning, with the additional advantage that the aluminum will require no such treat—ment as long as it lasts. The surface will be hardened with the anodic finish. All this will be made possible in the future by the great surplus of aluminum that will be on the market after the war.

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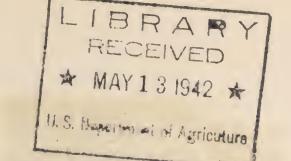
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#### The Daily Digest



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Washington, D. C., May 4, 1942

TREATING FEA SEED. Florists Exchange, April 25: In view of the importance of preventing waste of food seeds, it is worth noting that the Geneva (N.Y.) Experiment Station, in the effort to ensure better germination of pea seeds, has found that the best pre-treatment is a dressing of an organic compound known as tetrachloroparabenzoquinone which now is on the market in one percent strength mixed with a stabilizing agent. Over a period of two years testing it has proved an excellent seed protectant and induces strong vigorous growth. The process of treating is simple,  $1\frac{1}{2}$  ozs. of the material being thoroughly mixed with a bushel of seed. In small quantities the seeds may be shaken up in a jar with the correct amount of chemical.

AUTO CARRIERS MAY TRANSPORT WAR WORKERS. Business Week, April 25: Highway auto carriers, which appeared to be white elephants when automobile production ceased, may soon be back on the highways carrying war workers to and from their jobs. At a cost of \$500 for nonpriority materials, a plant in Detroit converted a 33-ft. haulaway truck into a bus which seats 45 and will hold as many more standees. There are about 5,000 haulaway trucks of modern design in existence that can be converted into buses. Latest conversion jobs are streamlined and have improved seating arrangements.

ADHESIVES FOR PACKAGING. Food Industries, April: Adhesives complete 90 percent of the packaging done today. While starches from certain regions will be cut off, other regions will help to meet the demands, provided we can get ship bottoms and keep the sea lanes open. As insurance against wartime shortages, alternate adhesives have been developed which are acceptable to industry. Constarch in the hands of capable research men is taking on many of the properties of tapioca. Resin emulsions with other ingredients added can function in some places for latex. Reclaimed rubber water dispersions are also coming into their own despite first objections to their dark actor. Extenders are being added to many of the serreer or critical raterials so they will go twice as far with little apparent change in physical properties. Animal glue is having many demands made upon it so that the use is greater than the supply. Alternate adhesives are available which function equally as well.

COTTON MILLS TO STEP UP BAGGING MATERIAL PRODUCTION. War Letter for Agricu lture, April 24: WPB has issued an order to cotton mills to convert their operations which will approximately double the production of osnaburg and bag sheetings for sand bags, camouflage cloth, and food and agricultural bags. The action is designed to correct shortages in these materials due to the curtailed burlap supply from India and increasing military needs. This action will convert certain percentages of the looms from civilian to military production, and it is expected that the present annual output of osnaburg will be stepped up from 263,500,000 yards to 660,000,000 yards, and bag sheetings from 448,000,000 yards to 855,500,000 yards. Mills will be operated as many hours as possible and full use will be made of the maximum width of looms. This order, in addition to other substitute bagging materials, should nearly adjust the supply situation by mid-summer.

WPB ACTS TO SUPPLY REPAIRS FOR PROCESSING PLANTS. War Letter for Agriculture, April 24: WPB has acted to make certain that necessary machinery is kept in good running order to meet increasing demands for milk and other dairy products. High ratings have been provided for deliveries of materials to processing plants necessary for repair, maintenance, and operation of plants processing or producing dairy products. The top rating is available in case of actual break-down of equipment used primarily to process, transport, or store food and dairy products for the Army, Navy, or Maritime Commission, or used in cold storage warehouses, meat-packing houses under Government inspection, and blast furnaces for air conditioning.

Said WPB: "A great strain has been placed on the dairy processing machinery of the country because of the Department of Agriculture's requirements for increased production, and the additional needs of our armed forces, our civilian population, and our allies. "It is imperative that this machinery be kept in excellent condition... Approximately 37,000 plants will be covered by the order, including receiving stations, pasteurizing plants, and plants manufacturing or processing other dairy products, such as cheese, dry milk, butter, and evaporated milk."

ADVANCE INFORMATION ON LAND ACQUISITION BY WAR DEPARTMENT. War Board Memorandum No. 22: Several States have asked for advance information about War Department land acquisition. Every effort has been made to get such information as early as possible, but, so many factors enter into the decision to purchase a particular site that positive information is rarely available more than a few days in advance. Investigators for the War Department may appear in local areas to survey the site; however, this is no sure indication that the site will be purchased. In view of this situation, we feel that the County War Board should take such local action as appears advisable. For example, the Board may wish to hold its first public meeting and organize its local working committee the moment War Department activities have been noticed in the area. At the first meeting in the area, local people should be told what can happen and how they can be affected by purchase of the land. It must be emphasized that agencies or officers of the USDA should not take part in 

any attempts to influence Government representatives for or against purchase of any particular site. The War Department is responsible for all matters directly relating to the acquisition of land; the Department of Agriculture is responsible for all matters relating to the necessary relocation and relief of land owners and tenants.

S.B.BLEDSOE APPOINTED CHAIRMAN OF ADMINISTRATIVE COUNCIL. Secretary Wickard, in Memorandum No. 852 (Amendment 4) says: I am hereby designating Samuel B. Bledsoe, Assistant to the Secretary, as Chairman of the Administrative Council, succeeding Robert H. Shields, formerly Assistant to the Secretary, who is now Solicitor of the Department of Agriculture.

NUTRITION IN AMERICAN REPUBLICS. Consumers' Guide, May 1: Many Americans do not have good food and plenty of it. A Nation-wide survey made in the U. S. A. in 1935-36 disclosed 45 million persons who were not getting proper diets. Inquiries by Argentine specialists in Buenos Aires revealed Argentines who were malnourished. Bolivian nutritionists have laid bare the inadequacies of the diets of the Indians, the mestizos, and the whites in that country. Eduadorean and Colombian nutritionists, Canadian and Cuban public health workers, workers in each of the American countries, under the spur of awakening American consciences have found similar defects in the nutritional underpinning of their countrymen's health. Hungry Americans existed before public health workers began to count them. What is significant is that in each of the American countries the problem of malnutrition has moved near the top of the list of problems that people are determined to solve.

Before the war, ships unloaded an average of 118 million pounds of spices a year on American docks. That is slightly less than a pound a year per person, and that includes pepper and vanilla beans as well as ginger and cinnamon and curry and cloves and nutmegs and saffron. Of the pound of spices a year Americans use to season their foods, one-third of a pound is black pepper. Mustard and cinnamon are the next most popular spices, but the amounts consumed are normally only a few ounces per person a year. About half of all the spices imported are used in the food industry to make meat products, like sausage, tasty; to make condiments and sauces; and to give zest to canned foods. The other half of the spices are bought by consumers for flavoring foods.

Not all the flavorings that sharpen up the goodness of foods are imported. Here is a list of spices and herbs American farmers could grow and probably will: Anise, caraway, cayenne pepper, celery, coriander, cumin, dill, fennel, ginger, licorice, marjoram, mustard, paprika, sage, sesame, and thyme. Some of these spice plants and herbs for flavoring (basil, chive, sweet marjoram, mint, nasturtium, parsley, sage, savory, tarragon, anise, caraway, celery, dill, thyme, and water-cress) can also be grown by people who have a knack with trowels and seeds. Cloves, cinnamon, cassia, black pepper, all-spice, vanilla, nutmeg, and mace are 7 flavorings that cannot be produced in the United States.

RAILROAD SHIPPING PROBLEMS. Business Week, April 25: The railroads in 1941 handled the largest freight movement in United States history—with 600,000 fewer freight cars than were in service in 1929. Can the railroads, with the help of the shippers, move a still larger volume this year by squeezing more transportation service out of the 1,700,000 railroad—owned and the 150,000 privately—owned (mostly tank) cars?....In the last war, 300,000 freight cars piled up along the Atlantic seaboard, blockading war exports. That mass brought federal takeover of U. S. roads. The Assn. of American Railroads' port control, set up in September of 1939, has kept export freight rolling so smoothly that there are only 25,000 cars at all ports awaiting unloading—and these are being released 2,500 a day.

Recently as a double safeguard, the A.A.R. embargoed all U. S. ports. Railroads may now accept only those export shipments that have U. S. government or United Nations bills of lading, or for which special licenses have been obtained from A.A.R. offices. Cars can't move to tidewater unless the roads are positive they'll be unloaded promptly. Guardian of freight car supply is the A.A.R. Car Service Division, with 13 district offices blanketing the country. It works with 13 regional Shippers Advisory Boards. Last June the Mid-West Shippers Advisory Board organized a system of 63 vigilance committees — with 995 traffic executives as members — to cover Western Indiana, Upper Michigan, Illinois, Iowa, and Wisconsin. These committees work closely with Car Service.

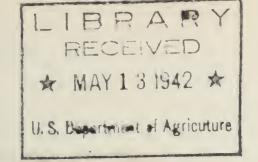
HOME FRUIT GARDEN IN EAST CENTRAL AND MIDDLE ATLANTIC STATES. A new USDA Leaflet by this title tells what kinds and varieties of fruits to plant in these States and how to cultivate them. Where spraying is not practical, the best fruits for home gardens in this region are generally, in order of adaptability: strawberries, raspberries, blackberries, sour cherries, grapes, some plums and pears, sweet cherries, peaches, apples. Leaflet No. 218 is available free from Information, Washington.

SPRING-WHEAT VARIETIES FOR NORTH CENTRAL STATES. A new Farmers' Bulletin, No. 1902, describes varieties of spring wheat grown in the Northern Plains and Prairie States. Hard red spring and durum wheats are the most important, being grown on about 95 percent of the acreage. Chief varieties of hard red spring, used for bread, are Thatcher, Marquis, and Ceres. Mindum and Kubanka are the recommended varieties of durum, used for macaroni and other edible pastes. White wheat varieties are grown under irrigation and for feed. The bulletin may be secured free from Information, Washington.

PROFITS FROM RABBITS. Locker Operator, April: The jack rabbit has become a source of a profitable income for one Ellis, Kansas, packing plant. Besides supplying rabbit meat from the 8,000 rabbits they purchase every day (approximately 20 tons), they render grease in surprising amounts; they dry, stretch and bale pelts to sell to hat manufacturers; they pack livers in 1-pound cans, freeze them and sell them for fish bait; and they cure the residue after the grease is extracted and convert it into bone and meat scrap for chicken feed. They believe that in the future glue can be extracted from the skin. The rabbits are purchased for about 17 cents apiece from hunters.

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## The Daily Digest



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Washington, D. C., May 5, 1942

GRANTS OF NUTRITION FOUNDATION. Science, April 24: The Nutrition Foundation, Inc., recently organized with the support of the food industry, will make its first series of grants, to promote research and education in the science of nutrition, effective on July 1. Grants made by the foundation will go to established institutions in the United States and Canada. Problems of critical importance in the war emergency will be given primary consideration. Food supplies for our allies and for specialized divisions of our armed forces as they epread to the far corners of the earth can not be provided without careful planning and adequate precautions.

CANNED POWDERED EGG YOLK. American Egg and Poultry Review, April: An interesting development recently has come to public attention; that is, the packaging of powdered yolk in 1/2 lb. tins for export as gifts to those over-seas. These tins are part of a so-called "gift kit," which also contains butter and cheese in similar packages. The 1/2 lb. tin of dried yolks is said to be equivalent to 1 1/2 dozen fresh egg yolks. The powder is produced in a mid-western drying plant and is kept under refrigeration here until ready for canning. It is put up in the 1/2 lb. tins only as needed and it is reported to be not over ten days in the tin when it is finally placed in the gift kit for shipment.

CHEMICAL STIMULATES GLADIOLUS GERMINATION. Southern Florist, April 24: The bulblets of many varieties of gladiolus do not germinate satisfactorily when planted in the spring, even though the conditions for storage over-winter are favorable, i.e. at a temperature of 40 degrees to 50 degrees F. The percentage of germination of such bulblets may be increased considerably by treating the bulblets with the chemical, ethylene chlorhydrin (also spelled chlorohydrin) before planting. This treatment is quite effective, even with bulblets that have been overwintered at a less favorable temperature, i.e. at 60 degrees F. Another advantage is that the bulblets do not need to be peeled before treatment.

RAYON FLARE CHUTES DEVILOPED. Canadian Textile Journal, April 24: Orders have been received by a Canadian firm for viscose rayon yarn to be used for weaving flare chute canopies for use by the Royal Canadian Air Force. The order is for a trial lot of chutes which will be allocated to the various air training centres across Canada. Ten percent of the chutes will be tested immediately. Strong rayon yard used in the initial trials proved satisfactory.

FREE VITAMINS FOR URUGUAYANS. Guide, May 1: "Vitaminas Gratuitas"

-- free vitamins -- are yours for the taking if you eat milk, salads,
vegetables, fruits, and whole-wheat bread. So runs the message on posters
put out by the National Committee of Nutrition in Uruguay, a country
which has pioneered in social reforms. In domestic science schools,
children are taught the facts of food. Radio programs over the government
owned radio station advise parents on the best and most economical foods.
Economic controls are also used to keep the cost of food down, the state
of nutrition up. The sale of meat in Montevideo is a government monopoly.
The War Department monopolizes the catching and sale of wishes, buy and sell
food. Cold storage meat facilities are also government operated.

SIMPLIFIED GLASS JARS. Food Industries, April: The Division of Simplified Practice National Bureau of Standards is working with the Design and Simplification Committee of the Glass Container Association on a program that in the end will eliminate glass containers of odd sizes, shapes and finishes. The association has designed a line of simplified glass jars, called the Economy Line Plain Round Jar. If these jars are used by the packers, it is estimated 25 to 30 percent less glass will be used than is required to make the glass containers now in use. The ratio of jar width to height permits the most economical packaging, which results in a saving of paperboard. A saving of from 20 to 40 percent in the materials used for closures is possible if this type of container is adopted. Eleven sizes of the Economy Line have been standardized.

Other specifications will be issued in the near future covering recommended standards in the Economy Line for milk and cream bottles, cottage cheese and sour cream jars, wide-mouth vegetable and fruit jars, half-gallon, No. 10 and gallon wide-mouth plain round jars, narrow-mouth round stubby juice bottles, narrow-mouth half-gallon and gallon jugs, containers for distilled spirits, wines, beer bottles, bottles for carbonated beverages, tumblers and pails.

WAREHOUSE POOLS. Business Week, April 25: To get an additional 10,000,000 sq.ft., the Office of Defense Transportation is allowing warehousemen in the larger cities to set up pools. So far, the plan is in actual operation only in Kansas City, Mo., but pools are also expected to spring up in New York, Philadelphia, Boston, Chicago, andother key cities with 400,000 or more sq.ft. of aggregate space. The Kansas City experiment so far has shown that rates don't vary much from the old nation-wide norm of roughly 7 1/2¢ per month per occupiable square foot. Currently, 80% of the nation's 110,000,000 sq.ft. of public warehouse space is filled. About 12,000,000 of the unfilled 22,000,000 sq.ft. isn't suitable for government use because of adverse location. But the remaining 10,000,000 sq.ft. is highly important, although all of it can't be used right away.

VEGETABLE SALES CLASSES. Business Week, April 25: Because Japanese have operated the vegetable and fruit sections of most markets in Los Angeles (some as employees, more as lessees), market owners there are having a tough time since the evacuation trek to Owens Valley. The Japanese had big families, worked all hours, and took time to build tempting displays that have been a stand-out feature of California markets and set the pace for the handling of produce in grocery stores. The market operators now believe they have the problem licked, and that they have started something new, with the training classes in fruit and vegetable merchandising which got under way last week, conducted by the Los Angeles public schools and held in the Produce Terminal. The first class was limited to 150 students, but about 500 showed up to enroll. Instructors are men trained in practical merchandising of produce.

CELLULOSE SPONGES. Science News Letter, April 25: Sponges made of cellulose, in these days of shortages, may replace rubber and natural sponges. They are said to be just as good - even better. They are highly absorbent, tough, durable, and resistant to chemicals and abrasives. They are soft and pliable when wet, and withstand repeated cleaning and sterilizing.

1941 FARM EQUIPMENT OUTPUT SETS RECORD. Implement and Tractor, April 25: All-time records for both manufacture and sales were established by the implement and tractor industry in 1941 according to the Bureau of the Census. The total value of manufacture, at wholesale prices, was reported at \$734,758,280, as compared with \$561,697,935 for the previous year, representing an increase of 30.8 percent. The 1941 volume was also 21.1 percent in excess of the previous high record of \$606,621,812 reported for 1929.

MORE ARTICLES APPEAR IN GLASS. Pathfinder, May 2: Things are coming out in glass now that were never associated with glass before. There are glass buckets to hold the sand being kept in readiness to extinguish incendiary bombs. Glass in storage batteries is used to save hard rubber; glass is replacing sapphire jewel bearings; there are glass handles on razors, umbrellas, electric irons and many other things. There are food choppers and flour sifters made of glass.

Many problems come up in adapting glass to new uses. Since glass containers may no longer have timplate closures, experiments have been made with a tumbler cap or seal made of pressed sawdust. For certain foods it is quite satisfactory. Window glass, a main product of the industry, is expected to fall off sharply in the next few months because of the building ban.

CHINESE SCIENTISTS ON WEST COAST ORGANIZE RESEARCH. Science Service, release April 15: Chinese scientists and technical students in Southern California have organized the United States West Coast Chapter as a part of the Chinese Natural Science Association with headquarters at Chungking, China. The aim of this new organization, as announced by Dr. T. T. Chen of the University of California at Los Angeles, is the advancement of study and research in the natural sciences and the attainment of greater cooperation between scientists in this country and China.

BRAZIL NUT INCREASINGLY IMPORTANT. Pathfinder, April 25: The Brazil nut, through scarcity of competing imports, promises to become more and more important. It grows only in the great Amazon valley. The output could be indefinitely expanded, for while the nuts are gathered from about 100,000 trees, there are hundreds of thousands of others which are never visited. Besides being eaten as a delicacy and used in the confectionery trade, these nuts can replace the cashew nuts formerly imported from India. They yield a bland oil highly prized for its use in cookery, also used by watchmakers, by artists.

BRITAIN REDUCES RATIONED FOODS. London correspondence in Journal of American Medical Association, April 18: In a broadcast the minister of food, Lord Woolton, said we could for a time live on our present rations, but it would not be wise. It would be much more comfortable to cut rations a bit and know there was safety behind them. The weekly rations of the following goods are now reduced to the level before an increase recently granted: sugar 8 ounces, butter and margarine 6 ounces, of which not more than 2 ounces may be butter; cooking fat 2 ounces. The cheese weekly ration will be reduced from 3 to 2 ounces. For the present a bigger ration will be allowed to certain classes of workers, and the ration for vegetarians and the diabetic will not be reduced.

WHO GETS THE FOOD DOLLAR? Medical Record, April 15: When the consumer spends one dollar for food, who gets it and how much do they get? The farmer gets forty-two cents only -- overall average; those who transport food get six cents, processors get twenty cents, wholesalers get eight cents, and retailers get twenty-four cents. Brokers and agents are lumped with processors in these figures. Clever advertising and competition on a basis of superfluous service have educated the public to expect all sorts of extras in packaging, delivery, small-quantity buying, food out of season, and many brands and varieties. Furthermore, as perishable a product as milk or one as easily procured as bread often travels one hundred miles in its retail journey to reach a consumer; there is infinite duplication and cross-hauling in such delivery service too. Of course huge quantities of food must be bought in advance by certain individuals or agencies and held in storage until sold. The farmer gets the following number of cents out of the dollar you spend for the food named: eggs, fifty-eight; potatoes, fifty; hens, forty-eight; dairy products, forty-five; white flour, forty; apples, thirty-five; onions, thirty-one; rice, twentynine; canned tomatoes, seventeen; macaroni, thirteen; crackers, nine.

TOBACCO FARMERS EXPECTED TO BOOST CROP. Winston-Salem (N.C.) report in Western Tobacco Journal, April 21: Most farmers of this area are planning to meet a 10 percent increase in their tobacco acreage allotments this year despite a serious shortage of farm labor. Most leaf growers will plant the extra acreage allowed them, depending on women and children to do much of the work. Tobacco is a crop which is well adapted to planting, culture, harvesting, and curing by women and farm youths. Adult men are required only for the heavier operations, such as hanging leaf in the barn.

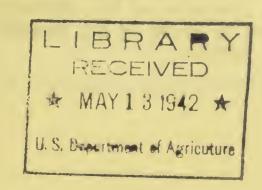
Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D. C., May 6, 1942

NEW MARKET FOR SURPLUS APPLES. Better Farms, May 1: Manufacture of apple juice concentrate, a comparatively new product for the Northeast, has been started in Niagara Falls, and promises an outlet for upwards of 1,000,000 bushels of apples, beginning with the 1942 crop. Apple juice concentrate is made at only seven or eight plants in the United States. The only other plant in the Northeast is in Massachusetts. The others are in Virginia, Michigan, and on the Pacific coast where there are four. The juice is concentrated in volume approximately 7 to 1, or until it has reached a 32 degree Baume' rating at 60 degrees F. With this degree of sugar content it is safely past the fermentation point, and will keep indefinitely, just like maple syrup. It may be changed back to sweet cider by the addition of water, when it will again become a fermentable product which may be used for vinegar or brandy manufacture.

The product turned out at the Niagara Falls plant is packed in 56-gallon wooden barrels, each barrel representing 400 gallons of fresh apple juice made from approximately 100 bushels of apples. The product is used as a base for jellies, jams and preserves; for medicines; for vinegar and brandy, and other purposes. New uses are being sought for it.

American Medical Association, April 25: The war has produced a great reduction in the supply of paper. Much of the raw material for making paper is imported, and shipping space is required for the more important munitions. Paper is rationed and medical journals have had their supplies reduced to half that of their prewar use. A book production war economy agreement has been voluntarily adopted by the publishers to cooperate in the economic use of materials. It has been suggested that books should be standardized, but there is so much individuality in their making that this would be detrimental. Publishers have to work on a basic ration of paper. The result of the agreement is that books will be thinner and must conform to the typographic standards laid down and to the maximum paper specification. The public is asked to realize that, although the books are thin, they contain just as much reading matter and are just as costly to produce.



SIDELINE GROCERIES. Butchers Advocate, April 22: Unable to obtain many of their usual items because of wartime restrictions, many wholesale grocers are turning to such unrelated items of merchandise as workshirts, flowerbulbs, smoked hams and bacon and razor blades. The average wholesale grocer handles about 2,500 food and grocery items in normal times. Tin and rubber conservation orders have cut their volume as much as 40-45 percent.

BELLADONNA PLANTINGS. Medical Record, April 15: A botanical drug house has completed plans for cultivating many hundred acres of belladonna this year to relieve the shortage resulting from the war. Belladonna, one of the most important botanical drugs for the manufacture of pharmaceutical preparations, normally is produced in Europe. Importations have been cut off since the early stages of the war and surplus stocks have dwindled to such an extent that only meagre supplies now exist with prices reflecting the scarcity. During World War I a small acreage of belladonna was grown in the United States but few of the growers were successful because the plant, being susceptible to various diseases and fungi, in addition to destruction by insects and poor weather, suffered high mortality and much of the 1917-18 crop never reached maturity. Furthermore, upon termination of the war prices promptly dropped far below the cost of cultivation and some growers were unable to market their production without loss. It is felt the responsibility for providing supplies of important raw drugs lies largely with the botanical drug industry, not primarily the farmers of the country.

PACKAGED DIESEL PLANT FOR FARMERS. A packaged Diesel electric plant mounted on a trailer has been in use at the Hanover (Pa.) show farms for the past 18 months where it has proved its ability as a portable power unit to drive irrigation pumps, feed mills and saw mills. The dverage fuel consumption on this unit for the 18 months was approximately one gallon of fuel oil per hour of use. The unit is equipped with variable speed governor. It can be operated on a speed of 800 to 1200 rpm., according to requirements.

April 25: Scientists feeling the patriotic urge to turn over to waste-paper collectors piles of old technical journals which they no longer need are urged to look them over first with an eye to their possible use in rebuilding war-damaged libraries abroad. Many such libraries have lost all or part of their files of scientific periodicals, or have been unable to keep them complete due to interruption of the mails or loss of shipments at sea. The American Library Association has appointed a special committee which is functioning under the chairmanship of John R. Russell, librarian of the University of Rochester, N. Y. Scientists are requested to write to Mr. Russell, before turning them over to waste-paper drives.

MEXICAN NUTRITION PROGRAM. Consumers' Guide, May 1: Mexico has a national nutrition program which is as pervasive as the one now planned in the U.S.A. Under the aegis of the National Commission on Nutrition, which was founded in 1939, more than 7,500 subsidiary nutrition.committees have been established in communities throughout the country. One feature of the program is the encouragement of family gardens in which families can produce for themselves the food they need for a balanced diet. A family restaurant serving low cost balanced meals was recently opened in Mexico City. A medical and dental clinic and cultural program are a part of the restaurant.

April 24: Rising labour costs, war priorities on labour supply, and conservation of raw material supply owing to transportation difficulties are necessitating drastic changes in Britain's textile export policy, according to recent trade reports from London. Wide control changes and readjustment in distribution machinery are under consideration by the Cotton Board. Manchester reports large orders in hand but manufacturers are not accepting new business in the absence of export allocations. Buying of essential goods has slackened and the whole trade was reported to be marking time on allocations for the second quarter.

INTER-AMERICAN TREATY ON NATURE PROTECTION. Science, April 24: The National Parks Association reports that seven countries have ratified the Inter-American Treaty on Nature Protection and Wildlife Preservation to date, three of them since the United States entered World War II. This is welcome evidence of the intention to continue permanent cooperation among the nations of the Western Hemisphere for the peaceful purposes of preserving unique natural features, historic objects and vanishing wildlife. The seven ratifying countries are the United States, Guatemala, Venezuela, El Salvador, Haiti, Dominican Republic, and Peru.

TANNERS GET NEW MATERIALS. Hide and Leather and Shoes, April 25: Among the new vegetable tanning materials being used as substitutes for others which are no longer available are tara pods and powder, which are being used in place of sumac. Tara pods and powder are being shipped to the U. S. from Ecuaodr, but war conditions have made shipments irregular. The pods contain from 28 to 30 percent tannin and the powder contains as high as 65 percent. Sample shipments of solid mangrove extract, containing approximately 50 percent tannin, have also been received here and this material may be used to take the place of Borneo and Philippine cutch, which are no longer available.

WARS CHANGE FOOD PACKAGING. Quick Frozen Foods, April: The beinning of the frosted foods industry was during the First World War when the price of sugar went up to twenty cents a pound and when the berry growers of Oregon and Washington were left with a bumper crop and no market. They capped and washed the berries, put them in 50-gallon barrels and stored them in local cold storage plants to freeze and wait for a market. Apparently every major war has caused innovations in the

packaging of foods. Thus canned foods had their beginning in the 19th Century through Napoleon's efforts to find ways of preserving food for his armies. The Spanish-American War brought forth evaporated milk and the First World War brought forth a sanitary can. Now with the shortage of tin. frosted foods may advance beyond our wildest dreams.

CONSUMER SHORTAGES AND COST OF LIVING. An article by this title, in Journal of Home Economics, May, says: In 1941 despite rising prices, increased taxes, and the operation of priorities, the average American family had a greater volume and variety of goods at its disposal than at any previous period in American history. In 1941 the American people found it possible to produce both more guns and more butter. In 1941 per capita real income payments were 15 percent above the 1929 level and the per capita real value of retail sales 13 percent above its 1929 level. Total consumer expenditures for the year were close to 70 billion dollars. On food alone the American people had spent over 20 billion dollars and even for tobacoo more than 1 1/4 billion dollars.

The sharp increases in armament production planned for the duration of the war, however, will involve a substantial decline in consumer goods production with a consequent decline in the volume of goods and services available for consumers. For the next few years it will be necessary to sacrifice a good many things so that we can have more guns.

In 1941 the value of all goods and services produced by the economy was in the neighborhood of 90 billion dollars. Production increased throughout the year, and by the end of 1941 the monthly rate of production was close to 100 billion dollars on an annual basis. At the end of 1941 more than 90 percent of the labor force was at work, and plant capacity was being utilized more fully than ever before. Even if the type of goods produced were to remain unchanged, it would be very difficult therefore to increase total production materially in 1942.

PROPOSED U.S.-MEXICAN TRADE AGREEMENT. Newsweek, April 20:
Acting Secretary of State Sumner Welles and Mexican Foreign Minister
Ezequiel Padilla have arrived at a preliminary U.S.-Mexican agreement
covering these points: 1 - Negotiations for a trade agreement to get
under way as soon as the United States, following its usual procedure,
completes a series of public hearings. (these begin May 18); 2 Collaborative efforts by the two countries to create a series of basic industries in Mexico, financed in certain cases by the Export-Import
Bank with loan guaranteed by the Mexican Government; 3 - Exploration by
the United States of means of turning over rolling stock to the Mexican
railroads, now carrying the peak loads of their history; 4 - Construction
of a high-octane gasoline plant in Mexico as soon as the necessary
equipment can be spared by the United States. 5 - A survey to determine
expansion possibilities of Mexico's small shipyards.

PLASTIC TRAFFIC LINES. Science News Letter, May 2: Lacking copal for use in white traffic paint, Britain is trying out 70 miles of road marked with plastic white lines, for blackout driving.

# The Daily Digest

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Washington, D. C., May 7, 1942

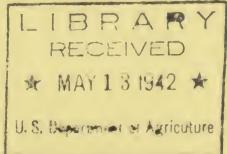
WEATHER AND CROPS. Weekly Weather and Crop Bulletin, May 6:
Dryness in the East was intensified by lack of rain and prevailing high
temperatures. Although there was temporary relief by showers in a few
localities, rain is needed badly from the eastern portions of Ohio,
Kentucky, and Tennessee northeastward, eastward, and southward; meadows,
pastures, some truck crops, and spring-seeded small grains are the principal sufferers. Showers improved the top soil in the Chir Valley and
substantial rains were beneficial in the upper Massicotypol Valley, although
there was damage by wind and hail. In a large southwestern area the
soil continues mestly too wet, especially on lowlands, while destructive
storms occurred in parts of the southern Great Plains.

From the Accky Mountains westward conditions were unfavorable, especially for young limestock and field work. Unusually cold, wet weather resulted in loss of lambs and calves in many places, and there was some frost damage in the Facific States as far south as the Great Valley of California. Some southwestern districts reported the coldest weather for so late in the season in more than 40 years. Heavy snows in elevated western sections improved the mountain water storage, with some localities reporting the best outlook in many years.

In the western winter wheat belt, the crop continued to make satisfactory progress. In the Atlantic States dryness restricted growth of straw, but top soil dryness in much of the Ohio Valley was relieved by showers. In the western belt development of wheat has been rapid. In the northwestern Plains and far West development continued satisfactory. Seeding spring wheat has been largely completed, except in more northwestern sections.

Corn planting made satisfactory advance, except in the wet Southwest. It is well under way as far north as the central Ohio Valley. In the persistently wet southern Plains seeding is slow, Corn is being substituted in some abandoned oat areas in the Southwest.

In the Cotton Belt temperatures averaged well above normal and precipitation was light to moderate in most sections. Except for need of rain for germination in some sections of the east, the weather was mostly favorable, although the soil in many north-central and northwestern localities continues too wet. Lowland fields are too wet in the north-central portions of the belt. In the east Gulf and south Atlantic areas planting made good progress, but rain is needed in some sections for late seeded. The early crop made fair to good progress. Chopping and cultivating are proceding in the southeastern belt.



REFRIGERATOR CAR ORDER. Washington report in American Butter Review, April: Orders have lately been issued by the Office of Defense Transportation directing the country's railroads and railroad car companies to restrict the use of refrigerator cars to the sole transportation of perishable products. The action was taken to inusre adequate refrigerated transporation for the increased volume of perishable farm products moving in commercial channels and for war supply. O.D.T. pointed out that during the period of moderate temperatures many commodities, such as canned and bottled goods, which have been moved under refrigeration during the winter to avoid frost and freeze damage, can now safely be shipped in good condition in box cars which, at the same time, are able to load greater tonnage.

TEXTILE RESEARCH IN WARTIME. Agricultural News Letter (Mar.-Apr.)
BHE says textile research today is being conducted to meet military needs
first, with normal uses secondary. However, "all such research, whether
on fabric construction and finish or on clothing design, will have its
effect -- no doubt a beneficial effect -- on the civilian clothing of
the future."...Cloth now means even more than civilian clothing and house
furnishings to the nation. It means tents, tarpaulins, and gun covers.
It means fabrics for uniforms, airplane wings, barrage balloons, parachutes
-- and a myriad of other military uses. Because of the war, textile research is quite different from five years ago....

One policy which has come to the fore in this more than in any other war is that fabrics for military use must meet specific specialized needs....One example is the new snag-proof fabric the Army has developed for its parachute troop uniforms - tough, smooth, and slick so it will not catch and tear easily. Another is the cotton twill which has been found so much better than denim for fatigue uniforms.....Fabric finishes are not only coming to the front - they are going to the front. Waterproofing for coats and equipment is being used - also fireproofing for tents to prevent disastrous fires in tent camps such as we have had before, and mildewproofing for naval equipment and for sandbags. Preshrinkage treatments are helping to prevent those misfit cotton uniforms we saw in 1917.....Different clothing designs have been developed and are in use for tank suits, for parachutists, and army motorcyclists. Work and field uniforms have all been revamped to better fit the job. A new servits jacket, developed for warmth and comfort as well as for the moralelifting effect, is receiving much favorable comment.

COST OF PRESS RELEASES CUT. Washington dispatch to The Greenville (S.C.) News, May 3: The Press Service of the Department of Agriculture is the first government agency to conserve paper by the elimination of heavy manila envelopes in its down-town delivery. The Department's press releases, the best that appear in Washington, are distributed by copy being pinned together, whereas all other departments send around their press releases in large manila envelopes that retail on the market for two cents each.

ODT SAYS MORE REFRIGERATOR SPACE NEEDED. Washington report in Dairy Record, 'April 29: The Office of Defense Transportation has indicated that a shortage of refrigeration space to lations food supplies confronts the country. While there is likely to be a shortage of cooler space (30 degrees, used for the storage of cheese, shell eggs, lard, fruits, vegetables and certain packinghouse products), the situation is likely to be acute in the case of freezer space (zero or below, used for storage of butter, frozen eggs, fresh meats, poultry, fish, frozen fruits and vegetables). Heavy increases in 1942 production quotas of commodities requiring freezer space, plus the shortage of tin containers, accentuates this condition.

ODT officials have recommended to the warehousing industry that 11,500,000 cubic feet of cooler space be converted to freezer space. At present, cooler space in public warehouses amounts to about 259,000,000 cubic feet, and freezer space to about 113,800,000 cubic feet.

FARM PASSENGER 'CAR OWNERS MUST GET GASOLINE RATION CARDS: War Letter for Agriculture, May 1: Farmer-owners of passenger cars, along with others in the 17 Eastern Seaboard States, will obtain gasoline ration cards May 15. The shortage of petroleum in the East is due chiefly to lack of transportation. The East consumes about a million and a half barrels of petroleum every day, of which 95 percent normally is brought in by tanker. The war has all but eliminated tankers for this purpose. Consequently, a tremendous load has been thrown on railroads and other inland transportation.

Farmers need to register only for cards to obtain gasoline for their passenger cars. They may obtain all the gasoline they need to operate tractors, trucks, and other farm equipment. The plan is temporary until July 1, after which a permanent rationing plan will go into effect.

SURVEY OF EATING HABITS. Butchers' Advocate, April 29: From the Office of Defense, Health and Welfare Services comes a survey of eating habits. Nothing new or startling has been revealed; nevertheless, it is always interesting to see what trends are. Meats and poultry lead in daily use, according to the survey and findings indicate that 9 out of every 10 families include some sort of meat dish in the average day's meal. Most popular meats are; beef, veal, lamb, ham and pork. Fowl, liver, kidney also make at least weekly appearances.

ARGENTINE NUTRITION INSTITUTE. Consumers' Guide, May 1: Nerve center of nutrition activities in Argentina is the National Institute of Nutrition in Buenos Aires. Here are trained technicians doing laboratory work in the Government's milk control center. From the National Institute radiates a network of nutritional activities, training programs for doctors, nurses, and dietitians. It operates a diet clinic, conducts food demonstrations in factories and in the fields, carries on research, and conducts cost of living inquiries. Free scholarships, covering living expenses as well as tuition, are offered to students of nutrition from all the Latin American countries, as well as to Argentina's own nutritionists.

SAYS OIL CONTROLS TERMITES. A member of the Texas College of Arts and Industries, in a letter to Science, April 2h, says: The author has found a simple, inexpensive method of keeping out termites. At every place where the building touches the ground discarded lubricating oil drained from the crankcase of an automobile was poured into little ditches around the supporting foundation. The house used for the experiment has 56 concrete piers in the foundation. Around each of these about a quart of discarded oil was poured. A proportionate amount was poured around the base of the chimney. The oil stays in the ground for a long time and does not diffuse more than a few inches from the little ditches. Apparently it does not affect the growth of shrubs six inches away. No doubt crude oil would give as good results as oil drained from motors.

CHROME SITUATION. Hide and Leather and Shoes, April 25: The conservation and substitution branch of the Bureau of Industrial Conservation has issued the second of a series of provisional reports on the scarcity of certain materials. The list is sub-divided into three groups, the first of which includes materials that generally are critically essential for the prosecution of the war. Chromium is included in this list, and the report warns that for these materials, civilian industry must largely find substitutes or anticipate stoppage of manufacture of articles containing them. The tanning industry is a large user of chromium chemicals.

On the more hopeful side, Secretary Harold Ickes has announced a new metallurgical treatment which will make available for war use about 900,000 tons of domestic chromium. The process was developed by the Bureau of Mines after years of research and experimentation. It entails the treatment of low grade American chromite ores to bring them up to a grade suitable for making ferro-chromium for the manufacturer of alloy steel used in armor plate, projectiles, and other key materials.

DEHYDRATED AND QUICK FROZEN FOODS. Butchers Advocate, April 22: Both dehydrated and quick-frozen foods, pushed to the fore because of canned goods curtailment, have advantages in wartime. Frozen foods, of course, are far superior in merchandising advantages, although such dried items as soups, onions, etc., have gained a foothold which will undoubtedly be maintained after the war. For natural appearance, flavor, vitamin content, however, quick frozen foods have decided advantages. Dehydrated foods, on the other hand, are important as a means of emergency rationing and may become more important for industrial use. Sausage makers have used dehydrated combinations of spices and vegetables with considerable success.

# The Daily Digest

Digest

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Washington, D. C., May 8, 1942

DROUGHT RECORDS SET IN SOME AREAS. Weekly Weather and Crop Bulletin, May 6: The following summary indicates the extent of the April drought and a comparison with previous records in some areas. At Hartford, Conn., it was the driest April since the beginning of the record in 1847; at Baltimore, Md., the monthly total, 0.88 inch, equaled April 1922, the previous driest since 1869; Washington, D. C., the driest in 95 years; Richmond, Va., the driest of record, the next driest being April 1888 with more than twice as much rainfall; Charlotte, N. C., the second driest of record; both Savannah, Ga., and Jacksonville, Fla., the driest in 50 years; and Birmingham, Ala., and Chattanooga, Tenn., the driest of record. While northern Florida was very dry, extreme southern Florida had heavy rains; Miami reported 13.62 inches, by far the greatest April rainfall of record.

FOREST-FIRE PREVENTION DURING WARTIME. Agricultural News Letter, (Mar.-Apr.): Accelerated research in use and production of cellulose, plywood, lumber, and other forest products related to war needs was included as one of three "lines of action" which the American Forestry Association urged on forest agencies as of first importance in promoting the common cause of victory. The resolution listed as the outstanding problem the emergency developed by impending danger of sabotage and aerial invasion as related to forest fires, and maintenance of continuous production of wood and other forest products essential to prosecution of the war. In transmitting the resolution to President Roosevelt, The Association urged that the U. S. Forest Service, "which is looked to as the responsible leader in the forest protection field," direct its leadership in a spirit of common unity.

The three-point resolution follows: (1) Protection of forest and related resources and of war industries, including power, water and transportation lines essential to their operation, against the impending danger of forest fires. (2) Maintenance of continuous production of wood and other forest products essential to the prosecution of the war. Most of the war industries, the training of our armed forces and the shipment of supplies and equipment to the fighting fronts of the United Nations is dependent in large part upon an uninterrupted production and delivery of wood in raw and fabricated forms. (3) Accelerated research in the use and production of cellulose, plywood, lumber and other forest products related to war needs.

BETTER NUTRITION IN LATIN AMERICA. Consumers' Guide, May 1:
Pre-school children in Guatemala get milk and medical care in Governmentaided but privately operated nurseries while their mothers work. A
National Nutrition Committee is now working on plans to extend school
gardens and to encourage the wider use of kitchen gardens. Nicaragua
supports school breakfasts and lunches. In addition it is approaching
farm owners with a plan to improve the diets of farm workers. In the
Dominican Republic the school gardens are distinctive for their emphasis
on tropical fruits. Puerto Rico is working on better child nutrition.

THE RUBBER WAR. Agriculture in the Americas, May: American forces of rubber production are striking back at the threat of a critical shortage in the Western Hemisphere. Latest move in the campaign is the departure for Latin America of 16 technicians employed under a previously announced project of the Technical Advisory Service of the Office of Inter-American Affairs. Experienced and fully armed with the latest knowledge about the extraction of rubber from wild Hevea and Castilla trees, these men have reached their stations in a number of jungle areas of tropical America, where they are taking the first steps toward increased production of rubber from wild trees. The group is under the direction of C. B. Manifold, on assignment to the project from the Department of Agriculture.

NEW SOLVENTS MAY REVOLUTIONIZE PAINT INDUSTRY. Science News Letter, April 25: A revolution in paints, varnishes and lacquers is in the making, comparable with the great and rapid changes wrought a few years ago by the introduction of cellulose lacquers. The new revolution in protective coatings is being brought about by a new class of solvents, known as the nitroparaffins, which were described before the meeting of the American Chemical Society. The nitroparaffins are made by treating one constituent of natural gas, propane, with nitric acid.

They are all excellent solvents for a number of coating materials, including the cellulose compounds, the rubber-like vinyl compounds, rubber itself, and natural shellac. They have only a little odor, and that not disagreeable. They are less inflammable than many present solvents, and are relatively non-toxic. They dry out at a moderate rate, permitting ready spreading but not staying wet too long after application. Finally, they permit less complex mixing formulas, so that costs of production should be lower.

RIBOFLAVIN CONCENTRATED. Science News Letter, April 25: A discovery that should have the doubly desirable effect of reducing the cost of one of the most important vitamins and at the same time finding a use for what is now one of the most nearly useless of dairy byproducts was reported to the American Chemical Society meeting by A. Leviton of the Bureau of Dairy Industry. Doctor Leviton has found that when whey is being condensed to the point where crystals of milk sugar begin to form, the vitamin riboflavin is strongly adsorbed on them. A concentrated not as much as 300 micrograms of riboflavin per gram of milk sugar has been prepared in the laboratory, the speaker stated.

PLANT-FOOD TONNAGE REPORTS. Editorial in Better Crops With Plant Food, April: Typical of progress in fertilizer records are recent reports on fertilizer figures. Announcement from California gives the tonnage of fertilizer materials and mixed goods used in the last quarter of 1941 in California. This shows that less than one-third of all the tonnage was mixed goods, with nitrogen carriers making up most of the tonnage of the straight materials sold. Connecticut Station Bulletin 453 gives figures on the fertilizer tonnage in that State for 1941. Over half the tonnage was mixed goods and of these mixed goods about three-quarters contained 20 or more units of plant food. The State Chemist of Maryland indicates that 128 analyses were registered for sale in that State in 1941 although 15 analyses accounted for nearly 80% of the total tonnage and nearly 60% of the tonnage consisted of analyses recommended by the Experiment Station.

A complete analysis of fertilizer usage in Michigan has been prepared by Michigan State College. In 1941 nearly 90% of the total consumption was in the form of mixed fertilizers of which over 97% contained 20 units or more of plant food. About 92% of all fertilizers were composed of grades or ratios recommended by the college and about 79% of the total sales were made up of 10 leading grades. In New Jersey a report of fertilizer sales in 1941 prepared by the Experiment Station showed that around 90% of the total sales were in the form of mixed goods. About 40% of the mixed goods consisting of 19 different grades were in the ratios recommended by the Station. Nearly 90% of the total tonnage of mixed fertilizers consisted of the 23 leading grades, but there were 108 other grades sold in amounts of 1,000 tons or less.

These various compilations show that great progress has been made in increasing the usage of fertilizers containing 20 units or more of plant food and in the usage of recommended grades or ratios. This is highly satisfactory in view of the urgency of use of high analysis fertilizers in this country's war effort.

BETTER NUTRITION IN URUGUAY. Consumers! Guide, May 1: Exhibits carry the message of better nutrition in Uruguay. Unique in the Americas is Montevideo's Municipal Museum of Nutrition where native foods are displayed. Exhibits show how to work these foods into low-cost diets. Other exhibits appetizingly set forth menus which are suitable for different kinds of families. About 35 thousand school children receive hot meals daily in 652 school lunchrooms. The school lunch programs carry on in close cooperation with clinics. Many school lunchrooms have doctors attached to them, who watch the children and their diets carefully.

U.S. RUBBER CO. HANDLES HAYON FOR LATIN OUTLETS. Business Week, May 2: Washington requires producers of viscose and acetate rayon yarn to set aside 4% of their output for shipment to "other American republics" but provides no means for exporting it. This poses a problem for rayon producers, most of whom have done little or no exporting in the past

FARM-HOME RADIO HOUR TALKS, WEEK MAY 11-16. Among radio talks scheduled over the National Farm and Home Hour, wee't of May 11-15, are the following: Wednesday, May 13 -- Secretary of Agriculture Wickard, and Progress Report on Guayule Production; Thursday, May 14--A Plan to Make Use of Seasonal Excessive Supplies of Perishable Farm Products, Roy Hendrickson, AMA Administrator.

and have no representatives below the border. The United States Rubber Co., has the means - a far-flung and long established distribution setup throughout Latin America - but it can no longer ship tires, hot water bottles, and sundry rubber products. To bring the means and the goods together, U. S. Rubber has reached an agreement with most of the major rayon companies whereby it will handle their Latin American exports.

DANGERS OF AGING AUTOMOBILES. The Technical Advisory Board of the Office of Plant and Operations calls attention to increased automotive hazards due to wartime conditions. Steering gear, wheel alignment, brakes, lamps, windshield wipers, and horns are only a few items which, if not properly maintained, increase the hazard. Leaking radiator or heater hose lines in cars using flammable anti-freeze mixtures normally account for many automobile fires.

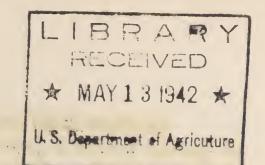
A survey conducted by Underwriters' Laboratories in a large city showed that 546 automobile fires were reported to the fire department in a 69-day period. The survey showed that the older the car, the greater the chance of fire; the newer the car, the less the chance of fire. There is a definite increase in the number of fires caused by carburetor backfire, with an increase in car age. As a car gets older, the owner's interest in maintenance usually decreases. Oil and grease accumulations in the engine compartment and in the carburetor air cleaner are readily ignited by backfire flame. A dirty air cleaner is probably more of a hazard than a safeguard.

ARGENTINA-CHILE DEAL. Business Week, May 2: In Chile, an Argentine trade commission has a survey of the country's trade needs and of the supplies it could provide Argentina. Under the slogan, "Sell More to Chile, Buy More from Chile," the Argentinians are trying to develop inter-American trade to replace overseas business cut off by the war. Both countries are seriously affected by the loss of markets in Axis and Axis-occupied countries and by the shortage of shipping space to deal with the United States.

BRAZIL TAKES OVER JAP COOPERATIVES. Business Week, May 2: In Brazil, government officials prepare to take over Japanese cooperatives for the duration. These cooperatives handled an annual turnover of nearly \$20,000,000. All were directed by the Tokyo government. Some of them controlled exports and imports, banks, mines, cotton mills, and construction companies. In Sao Paulo alone there are nine Japanese agricultural cooperatives which handled 20% of the country's vast cotton crop and almost all of the potato and truck garden crops.

WOOD SAVES STEEL IN ORDNANCE PLANTS. Business Week, May 2: To save steel, one of the big new Army ordnance plants is being constructed with timber trusses and timber columns. The trusses were prefabricated on the job with bolts, splitring connectors, and shear plates. Timbers were purchased cut to design length.

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## Daily Digest.

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D. C., May 11, 1942.

STATES WARNED ON TRADE BARRIERS. Washington, D. C. (AP) report: Under thinly veiled threats of Federal intervention, representatives of the State governments closed a three-day meeting here today with informal promises to remove voluntarily any local legal barriers to the war effort. In the three days of speeches, they had been told that highway regulations which interfere with the loading and movement of war materials trucks, sanitary ordinances which waste scarce metals, dairy regulations which hamper milk purchases for the Army, and similar hindrances must be eliminated for the duration of the war. Federal officials who conducted the meeting said they did not want any resolutions that did not have the effect of law, and would keep close tabs on the actual legal action taken when the representatives go home. No deadline was set, however.

REDUCE EGG LOSSES. Poultry Tribune, May: Most of the emphasis and glamour of this war-time drive for more eggs has been centered on getting the eggs laid. But if those eggs are not handled properly they never reach the consumer. One qualified authority has estimated that fully 5 percent of all eggs that are produced are lost somewhere between the nest and the table. This is a staggering total when we consider that the Food-for-Freedom production goal for 1942 is 4,200,000,000 dozens. This loss, then, runs well over 200,000,000 dozen worth more than 50 million dollars and that's too much money for any industry to disregard. This enormous total is not spectacular because it is not lost in any one place — it is whittled off a little here and a little there so that nobody realizes the total. Buch of this sum could be saved and this is the year for everybody to make his saving contribution. Every egg is vital now.

FARMERS POOL MEN, MACHINES. Business Week, May 2: Farmers are falling back on the time-honored cooperative method of pooling men and machines which will be a real influence in the 1942 harvest, even more so in 1943. Five Madison County (Iowa) farms have pooled 14 implements, 16 horses, five farmers (one a woman), and one hired man in a joint operation covering 1,463 acres, five crops, and 421 head of livestock.

CANADIAN BEEF PROBLEM. Butchers' Advocate, April 22: Control of Canada's entire production of beef may become necessary, according to Donald Gordon, chairman of the Dominion's Wartime Prices and Trade Board. While there is no real shortage of beef in the country as a whole, the Canadian Food Administration and Agricultural Department announce that in some districts demand has increased 25 percent, causing regional shortages. Shipments from our northern neighbor to this country now amount to about 1,000 cattle a day, and normally about 3,000 cattle are slaughtered daily.

CHEMICAL REMEDY FOR GERMS COMES FROM SOIL BACILLI. Science Service release, April 27: A new chemical remedy against germs, expected to be particularly useful in treatment of war wounds, has now been tested on 90 patients in Philadelphia hospitals. The new chemical remedy, H-1, is extracted from germs that live in the ground. It has proved very effective against infections with germs in the gram-positive group, which are the ones found in 80% to 90% of wounds. In addition to its germ-killing effect, H-1 seems to stimulate healing. H-1 belongs in that rapidly growing group of remedies against germs which are extracted from microorganisms instead of being made in the chemical laboratory.

SYCAMORE, ILL., COMMANDOS AID FARM WORK. Business Week, May 2: At Sycamore, Illinois, the local chamber of commerce canvassed town business men, signed up a number on pledges to spare as much time as possible for volunteer work when nearby farmers ask for it -- "compensation, the privilege of being a free man living in the U. S. A." The first platoon of the Sycamore Farm Commandos reported for duty one afternoon recently piled into automobiles, and drove to the Dayton farm east of town. Business men of the town worked for several hours at repairing fences and cleaning fields. This is a relatively slack season on northern Illinois farms, but the real test of the idea will come with June and July haying, at which time the members agree to work several hours a week helping out their short-handed farm-neighbors.

AUTHORIZES 700,000-TON SYNTHETIC RUBBER PROGRAM. May 5: The WPB has authorized the Reconstruction Finance Corporation to provide facilities for an annual productive capacity of 700,000 tons of Buna S synthetic rubber to be in operation not later than the end of 1943, WPB Chief Donald M. Nelson and Coordinator for Rubber Arthur B. Newhall have announced. This represents an increase of 100,000 tons in the Buna S program previously authorized by the WPB, and is in addition to the planned capacity for Butyl synthetic rubber and neoprene, totalling 100,000 tons. All the synthetic rubber to be produced for many months must be reserved for military uses, and none will be available for civilian uses, such as automobile tires.

SHEARLING SKINS FOR AVIATORS' UNIFORMS. Business Week, May 2: An aviator's jacket, pants, helmet, and boots must be lined with shearling sheep skins — this means about 100 sq. feet or 15 skins per flier. The big sheep states of Texas and California have mild climates which permit shearings earlier than other big grazing areas. WPB is appealing to the patriotism of the sheep raisers. They are asked to shear many animals which normally would be marketed with wool too long for flying suits, and to shear soon enough to permit a proper growth of wool before slaughter time, which means slaughtering about three weeks after shearing. Results in these states probably will determine whether the plan will be extended to other regions.

In normal times, U. S. demand is for about 6,000,000 shearlings annually. Domestic sheep produce about half of these. Australia supplies some 1,500,000, the rest coming from South Africa and South America. Ordinarily the skins are used in sheep-lined clothing for outdoor workers and sportsmen. The shearling situation is complicated by British control of overseas skins. Empire exports are rationed by the British wool board. Since London must conserve its own stocks, it is estimated that the board will reduce empire shipments to the U. S. by 30% this year.

ARMY BUYING CANNED FRUITS, VEGETABLES FOR 5 OTHER GOV. AGENCIES. The army is now buying canned fruits and vegetables for the Navy, Marine Corps, Veterans Administration, Lease Lend and Treasury Procurement, in addition to the Army, the War Department has announced. The new procedure, which will continue for the balance of the year, was set up under a War Production Board allocation to insure that all Federal agencies taking a vital part in the war effort would be able at all times to obtain the highest quality canned goods.

The plan is advantageous to the canner also, for he now learns whether his goods meet Army specifications long before he contracts for delivery. A commercial canner is required under the plan to set aside a specified percentage of his total pack for government use. After he has completed any part of his pack, an Army Quartermaster Corps purchasing agent visits his plant and negotiates directly with him with the idea of purchasing the government's portion of the available goods. An expert from the Agricultural Marketing Administration then grades the goods and earmarks those to be purchased.

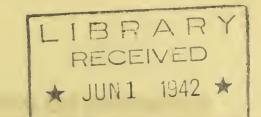
BLACKOUTS AND LAYERS. Country Gentleman, April: Air-raid alarms and blackouts may force poultrymen in some coastal areas to discontinue artificial lights in their laying houses. The University of California believes that the use of lights should be abolished until the war is over. When lights are used irregularly, they are likely to do the birds more harm than good. An effective blackout of poultry houses would mean covering all outside openings, thus cutting off ventilation. Mechanical air conditioning is too expensive for the average laying house. Artificial lights do stimulate winter laying, of course, and if they were discontinued the peak of egg production would come later in the spring.

COFFEE RESTRICTION TO CONSERVE STOCKS. Victory, May 5: The recent WPB order reducing the amount of coffee which may be delivered by roasters, and the amount which may be accepted by wholesale receivers during any month to 75 percent of deliveries during the corresponding period of 1941, will conserve supplies now on hand for the Army, Navy, and civilian population and to make future supplies go as far as possible. The war has created uncertainties about future supplies, since merchant ships that normally transport coffee are needed to carry war materials. Practically all coffee received in the United States comes from 14 South and Central American countries, with Brazil and Colombia alone supplying about 75 percent of the total. Present stocks of green coffee in this country are about normal.

CERAMICS FURNISHES SUBSTITUTE MATERIALS. Business Week, May 2: Ceramics — one of the oldest industrial processes known to man — is being adapted to the exigencies of the world situation, and is finding new civilian uses which may mean important business in postwar years. At the recent annual meeting of the American Ceramic Society it was reported that the ceramic manufacturing industry has already fulfilled and is now working on substantial contracts for materials going directly into the military service. The porcelain enameling group has delivered a big volume of enameled steel hospital ware, some kitchen ware and table tops, and is working on designs for porcelain enameled engine mufflers, and chairs and lockers for Navy use. The whiteware group has furnished the War Department with vitrified dinnerware, steatite electrical instrument parts, porcelain knobs, tubes, and outlet boxes for cantonment wiring, and is now developing all-clay service sinks and grease traps.

Thus far, civilian industry has drawn less on ceramics than on wood and glass for materials to replace the long list of shortages. Agitators for washing machines have now run the gamut from aluminum to plastics to porcelain enameled steel and cast iron, and if the ferrous shortage develops may go to all-porcelain. Porcelain buttons replace plastic and pearl buttons. Mechanical refrigerators might be made of porcelain enamel or all-porcelain, if WPB would let them be built. Though porcelain containers have been used in France and England for face creams, lip sticks, and other cosmetics, the field is wide open here.

Ceramic tile is about to regain from rubber the place it once occupied as a liner for chemical processing and storage tanks. Ceramic housings for table radios, clocks, toasters, and other electrical appliances will probably be ready when the resumption of manufacture is permitted. Meter housings, pump housings and impellers, oven vents, end frames for small motors, bed plates for small machine tools, flashlight cases, and weighing scale bases are all being considered.



Prepared by the Press Service for the use of USDA employees. Views and Spidians tine Hest Authority of not necessarily approved by the Department of Apriculture.

Washington, D.C., May 12, 1942

CONSERVATION OF KNOWLEDGE. F.C. Bradford, Superintendent, USDA, Glenn Dale, Md., station, in Science, May 8: Systematization of knowledge and its publication could well form a part of the program of every institution. Publication of such works should not drain seriously the publication funds, for if proper standards are maintained, contributions of this sort will be far less numerous than the research papers. Publication of critical literature reviews would have several beneficial effects; it would make readily accessible in a few minutes information whose gathering and collation required months and years.... The influence exerted by men whose chief responsibility and greatest idistinction lay in providing complete, digested and evaluated information would be felt in many directions. It would constitute a strong force in a direction needed now more than ever, namely, coordination of research. It would relieve investigators of much of the labor of searching through great masses of reading to glean a small grist of pertinent matter..... Investigators are relying increasingly on abstract journals to bring their general information down to date ..... As a rule, abstracting done abroad is a paid service; in the United States it is almost entirely voluntary.....It is possible, that abstract journals could increase their usefulness and their revenues by adopting a format lending itself to printing and sale of reprint separates that could be distributed readily into various files.

Canada has no farm price parity program, but farmers are handled gingerly under the new price law. The Canadian ceilings do not apply to livestock, poultry, eggs, milk, cream, dairy butter, farm-made cheese, honey, or maple syrup when they are sold by the farmer to dealers, processors, or manufacturers — which covers the bulk of the business. But when the products are sold by the farmer directly to the consumer, prices are not allowed to rise above the maximum retail prices established during the base period for the same product in the same area. This was done to give farmers the benefit of any trading situation which might arise without increasing prices to ultimate consumers. It also aims to permit supplies to flow freely from farmer to processor. Canada from the first exempted from price control all sales of !fresh fruit and fish.

SEED FROM U.S. TO PLANT 5,000 ACRES IN MUSSIA. Feedstuffs, May 2: Enough seeds to plant more than 5,000 acres of Russia's soil have been received by Russian War Relief, Inc., since it launched a campaign last month for seeds to "Plant the Scorched Earth," Joseph W. Pincus, seed consultant in charge of the relief agency's campaign, has announced.

REFRIGERATOR CAR MOVEMENT SPEEDED UP. Market Growers Journal, May 1: Teeth are being placed in the request of the Interstate Commerce Commission and the Association of American Railroads that cars carrying vegetables and other perishables be unloaded promptly. Three New York City firms were cited in mid-Aprill for failure to unload reefers promptly. Embargoes were placed on shipments of all commodities moving over all railroads from all sections of the country going to these companies, until the car accumulation was cleared up. In an effort to speed up the movement of refrigerator cars, the United Fresh Fruit & Vegetable Association is distributing at its own expense 400,000 copies of a red, white, and blue poster depicting Uncle Sam loading a cannon with shells fashioned much like refrigerator cars. Tacked on the inside of cars at point of shipment, the posters urge handlers to "Get this car unloaded and back on the firing line!"

TRUCK OPERATORS MAKE CONSERVATION PLANS. National Provisioner,
May 2: The mobilization, for the first time in the U.S., of the combined
facilities of major private truck operators in working out the problems
which have developed as a result of the impact of critical material shortages
upon the private transportation facilities of the nation was accomplished
at a recent meeting of transportation executives representing major industries dependent upon private motor truck transportations. The meeting was
conducted under the auspices of the National Council of Private Motor
Truck Owners, Inc., to complete the organization of the council's war
advisory committee and to develop a program for voluntary cooperation in
the conservation of rubber, gasoline, commercial vehicles and other vital
war essentials.

EXTEND USES FOR "AGRICULTURAL BAGS". Victory, May 5: Order M-107, which assigns a preference rating of A-2 to purchase orders by bag manufacturers for cotton fabrics suitable for "Agricultural Bags," has been amended to include a few additional commodities for which such agricultural bags may be used. They are shellfish, hops, brewers malt, tobacco and nursery stock, ground poultry grit, manufactured and natural abrasive grain, and metal parts.

MOST FARMERS REPAIR MACHINERY EARLY. Farm Journal, May: A survey of the machinery repair work in Ohio, which might be considered typical of most of the Corn Belt states, indicates that the majority of farmers took the "early repair program" seriously. However, in spite of the extra stock of repairs carried by dealers, there have been found shortages, especially in alloy steel repairs. In order to guard against a serious shortage next year, you can help the national defense work by checking your machinery as soon as you have completed the season's work, and noting on a tag fastened to the machine the needed parts. Then order these from your dealer who may have them, or if he does not, he can order them for you and have ample time to get them to you before they are needed urgently. Such a program will benefit the farmer and the nation.

-3- May 12, 29 DISEASE PREVENTION AT USDA POULTRY LABORATORY. U.S. Egg and Poultry Magazine, May: During the past three years the White Leghorn chickens at the Regional Poultry Research Laboratory (East Lansing, Mich.) have not been infected with colds, fowl pox, laryngotracheitis or other respiratory diseases, nor have they been infested with lice, mites, round worms or tape worms. Freedom from these infectious diseases and common parasites can be attributed to management, quarantine measures and sanitary practices introduced in the spring of 1939.

The chickens, without exception, are brooded and maintained within buildings, the windows and doors of which are screened against flies, mosquitoes and other insects. Furthermore, sparrows are not permitted to nest nor raise their young in or about any of the buildings. In addition, care is exercised to avoid spilling feed on the premises and thus reduce the attraction for sparrows and other birds about the poultry houses and 

other laboratory buildings.

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Another factor that reduces to a minimum the possibility, of introducing parasites is the practice of delivering feed to the different houses through vestibules and removing droppings and litter from these houses in large garbage cans with covers. All feed is delivered to the laboratory in new bags and litter which has not been exposed to other poultry nor to wild birds is used. Furthermore all of the used litter and droppings are burned rather than used as manure on the premises.

WOOD FOR WAR. Newsweek, May 11: Wood research helped beat the Kaiser: Out of American laboratories during the last war flowed such developments as improved charcoal for gas masks, wool alcohol, acetone for explosives, and rapid seasoning of spruce for airplane struts and spars. In this war wood has been doing an even bigger job - filling the breach created by metals shortages. Three recent announcements emphasized this fact: The Curtiss-Wright Corp. revealed that its new military cargo plane, almost all plywood and about the size of the commercial transports, will be built in a new plant in Kentucky. Thus the use of plywood will draft cabinet and furniture makers into the plane-building program. John M. Brower, head of the WPB's furniture branch, told a furniture luncheon group in Chicago that conversion of a large proportion of the industry to such war work was "imperative." The American Rolling Mill Co., a big. sheet-steel producer, disclosed that it was producing a prefabricated allwood culvert, as "a solution to the problem of building drainage structures without the use of critical materials."

Wood also serves such specialized purposes as the carving of fullscale models of new-type planes and tanks. In Wichita, Kan., the Cleveland area, and other industrial centers, some designers of war plants are building wooden factories like the heavy-timbered mill-type plants of 50 years ago, but protected against termites and fire by chemical treatment of wood. In civilian life the priorities-free material is replacing steel in window sashes, filing cabinets, tool boxes, bedspring frames, boxcars, subchasers, barges, truck bodies, etc. - a trend that will be accelerated by the order limiting future uses of steel. All this explains the recent 16 percent rise in lumber shipments and the 35 percent spurt in orders over last year's level.

NEW YORK EMERGENCY MILK POWERS. Albany report in American Butter Review, April: Governor Herbert H. Lehman has signed a bill designed to afford protection to the consuming public against contamination of the milk supply through any form of enemy action. The State Commissioner of Health is empowered to place an embargo on any portion of the New York State milk supply which he believes to be contaminated, while authority likewise is granted for the transfer of milk from plant to plant or from municipality to municipality for pasteurization, bottling or sale if such measures become necessary.

ARGENTINA EXPORTS MORE HIDES, SKINS. Foreign Commerce Weekly, May 9: Argentine export shipments of hides and skins in January increased 57.9 percent in volume over January 1941 — prices meanwhile gaining 123.7 percent. Prices of "heavy" and "light" steer hides declined about 12 percent after suspension of trading when ceiling prices were imposed by the United States. Trading in "Americano" dry hides was fairly active because of purchasing by United States importers. Under the influence of buying from the United States, Argentine trade in hides was much brisker in March than in February, and British buyers, too, showed more activity than in other recent months. Prices of salted hides, however, remained virtually unchanged and seemed to conform to the ceiling levels current in the United States.

IMPROVED DIETS IN CHILE. Consumers' Guide, May 1: Almost every sizeable Chilean city has a popular restaurant where working-class families may get low-cost meals. These restaurants also serve more than 1,500,000 meals to school children each year. The popular restaurants are under the direction of a trained nutritionist who is secretary of the National Nutrition Council. Now, the Chilean National Nutritional Council is making a determined effort to transform each popular restaurant into a people's school of nutrition. Popular pamphlets on nutrition are distributed by the Council and market information is broadcast to families so they may know what foods are most economical at the moment. To reach rural families, exhibits on wheels drive out to the villages and give demonstrations in village squares or in the open country. The Chilean Army, too, is a potent force for good nutrition. Recruits are educated in good diet habits so that when they return to their homes they can act as nutritional emissarie to their families and neighbors.

MEXICAN HENEQUEN FIBER PRODUCTION. Foreign Commerce Weekly, May 9: The 1942 production in Mexico of staple henequen fiber (known as sisal fiber in the United States) will amount to approximately 96,585 metric tons, and of short henequen fiber to 6,825 metric tons. Of this total, about 348,428 bales of sisal fiber and 65,000 bales of short fiber may be available for export, and about 100,240 bales will be manufactured into cordage, binder twine, cloth, and sacks. There has been considerable under-planting of young henequen "hijos" since 1938, but present stimulated interest, through favorable prices, may bring in some additional acreage that has been unworked for some time. Because of the length of time required before henequen seedlings mature, little increase in production is probable before 1947.

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## he Daily Digest

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Washington, D.C., May 13, 1942

WAR CHANGES STYLES IN SOUPS. Business Week, May 9: In banning ready-to-serve soups, WPB has emphasized a trend that has made itself felt for the past five years — a decline in the sales of this variety. The new order limits production to these types: chicken, chicken gumbo, chicken noodle, gumbo creole, consomme, bouillon, tomato, asparagus, spinach, fresh green pea, clam or fish chowder, Scotch broth, vegetable, vegetable-vegetarian (minus meat), pepper pot, oxtail, mock turtle, country style chicken, corn chowder, beef, and vegetable beef. Such varieties as cream of mushroom are out. So are bean and cream of potato. WPB thinks the housewife can make these herself.

Of more importance to the industry than the ban on some varieties, however, is the requirement that all soups not only must be condensed, but must also contain certain specific percentages of dry solids by weight. The various chicken soups (except country style) must be 6% solids; tomato, asparagus, spinach, and fresh green pea, 7%; chowders, 8%; beef and vegetable beef, 12%; all others, 10%. Moreover, these solids must be chicken, or beef, or fish, or vegetables. The soup can't be padded out with rice, macaroni, ground pretzels (a favorite thickener), or whatnot. Soups must contain these solids, says WPB " in order to improve their nutritive content." Credit for inclusion of this quality standard in a priority regulation apparently belongs to the Bureau of Home Economics.

ECUADOR TO TEST U.S. COTTON. Bulletin of the Pan American Union, May: Fifty pounds of Stoneville No. 5A cotton seed were recently sent to the Ministry of Agriculture in Ecuador for experimental cultivation in the Province of Manabi. This variety of cotton was given careful study for several years by the Cotton Experimental Station of the State of Louisiana and was found to have high germinating power, to yield a good crop, and to be both pest-resistant and easily adaptable to different soils and climates. Its fibers are of a length similar to the fibers imported for Ecuador's cotton textile industry.

NUTRITION PROGRESS IN VENEZUEIA. Consumers' Guide, May 1: Children's milk stations, school lunch programs, and popular restaurants are spreading throughout Venezuela. A feature of the popular restaurants is the dental clinics which are run in connection with them. The dental clinics, incidentally, are effective in teaching good nutrition. Men or women who feel a twinge while eating go to the dental clinic and while their teeth are filled they are told they could avoid toothaches by proper diet. What is a proper diet? Meat, fish, eggs, milk, whole-grain cereals, and generous servings of fruits and vegetables. The lesson sticks. Popular lectures held in the restaurants underline the same moral.

OPA RULING ON PUERTO RICAN COFFEE. Foreign Commerce Weekly, May 9: Because of conditions peculiar to the coffee industry of Puerto Rico, sales of green coffee in that Territory have been exempted from Revised Price Schedule No. 50 by OPA. For more than 30 years the Puerto Rico coffee industry has been in a depressed condition. Puerto Rico coffee growers are required by law to sell 55 percent of their production for sale in the local market and are then at liberty to sell the remaining 45 percent for export. There is now an aggregate subsidy of 4 cents per pound on coffee sold for export.

ODT CALLS FOR NATION-WIDE TRANSPORT ORGANIZATION. Victory, May 5: Joseph B. Eastman, Director of the Office of Defense Transportation, has called for immediate organization of a Nation-wide war transportation program. The call was issued simultaneously to the governors of every State and to the mayors and other chief executives of every town and city with a population of 10,000 or more. Plans also are under way to mobilize the smaller communities and rural areas in the first systematic drive to get the most efficient service possible from the country's passenger transportation facilities.

One branch of the tire industry which has hardly missed a beat since civilian production of tires was stopped is its textile mills. Like carpet and rug manufacturers whose looms are now being converted to the production of heavy duck for the armed services, tire textile mills are spinning yarn and weaving various weights of cotton fabrics for military purposes. Of the five textile mills owned by U.S. Rubber Co., three are now working at capacity on duck for war production, and the other two are still making cord to supply the company's plants for essential military tires. Previously the products of U.S. Rubber's textile division were limited to cord for tire plies and to fabrics for chafer strips. These products require a large capacity of carding and spinning but a comparatively small number of looms for weaving. Accordingly, when civilian tire production stopped, more looms were bought and old looms were resurrected from storage, reconditioned, and rushed into service.

man Donald Nelson; in a recent speech, said our courageous American fighters "have shown that if we at home give them just a 50-50 chance, by providing them with weapons and the support they need, they will do the rest." Nelson may have been thinking primarily of instruments that deal out death, when he referred to weapons, but aren't foods that help maintain strength and virility weapons, too?

Secretary of Agriculture Wickard summed it up well, when he wrote, "Food will win the war and write the peace." One of his able assistants, Roy F. Hendrickson, Agricultural Marketing Administrator, said recently, "The underfed have little to sacrifice, even less of strength to meet reverses, and they cannot see where public leadership is any great shakes so far as its value to them is concerned. Such groups with listless purpose constitute sectors as vulnerable on the home front as would a fever-stricken regiment on a battle line. "Remarks like these from our high officials in the Department of Agriculture indicate they recognize the importance of food as a weapon in defense, as well as in offense.

CHEMISTRY IN WAR PRODUCTION. Farm Journal, May: When a bomb exploded in the throat of that Japanese battleship last December modern chemistry was in action. So were farm products. The foremost munition is smokeless powder. Sugar and cereal crops yield the alcohol. Cotton and wood provide the cellulose. Chemistry supplies the nitrogen and the processes for turning them into powder. Chemistry manufactures fertilizers, and fertilizers are responsible for 15% of the nation's total food production. Only through chemistry is it possible to reinforce rations with the vitamins which, but for chemistry, would be unknown. The shortage of metals is stimulating progress toward planes of plastic. Chemical manufacture and agriculture together provide the tons of superior glue from soybean protein which make possible the plywood plane — and the whole plywood industry.

FLA. TO PROMOTE PERSIAN LIMES. Citrus Industry, May: For the first time Florida's Persian lime growers will aggressively seek to broaden the market for their product this year, according to the Florida Citrus Commission. This year's crop of Persian limes is 25% to 40% larger than last year. It is felt that with reduced off-shore supplies from the West Indies and other producing areas, plus the fact that this year Florida's lime crop will be governed by the same rigid maturity laws as administered by the Florida Citrus Commission on other Florida citrus fruits, Florida's larger, juicier Persian limes will go a long way this year toward broadening the market.

CO-OP SPRAY RIGS CUT PAINTING COSTS. Hoosier Farmer, May: Cooperative associations in Indiana operate 25 paint spraying machines. The program grew out of the Knox County Farm Bureau Cooperative Association which pioneered this service with a paint spray rig purchased in 1941. This program "caught on" in other cooperatives over the state because it offered an opportunity to cut the expense and man-hours involved in farm maintenance at a time when a shortage of farm labor makes this an important item. Operators and managers from the 25 counties met recently to get a short course in the use of this equipment from the Knox county experts, and now they are busy saving farmers from 30 to 55 percent in the cost of putting on the paint.

BRITISH TO TEST SOYBEAN GRITS AS SAUSAGE FILLER. Feedstuffs, May 2: An experiment which eventually may lead to extensive exports of domestic soybeans for use in Britain as ersatz sausage filling, replacing because of comparative cheapness, some of the demands on American pork products, shortly will be launched by the British government. Soybean grits have been sent to England for experimental purposes. High protein and fat content of soybeans has been recognized for years by the Germans. British nutritionists are not as yet certain how they will treat the beans. Some experts on nutrition hold the soybean protein and fat content to be equal if not superior to meat. In fact, one nutritionist here said proper handling of soybeans in sausage or in other ground meats would be virutally unnoticed, 'though American laws would bar such use here as "adulteration."

NEW CROPS FOR COLOMBIAN BANANA ZONE. Agriculture in the Americas, May: Diversification of farming is reported under consideration for Colombia's Santa Marta banana zone, since the banana industry has been hard hit by sigatoka disease, the loss of European markets, and lack of suitable credit facilities. A recent survey showed that conditions in the area are

favorable for the cultivation of grapes, and there are also prospects for the growth of rice, peanuts, and coconuts.

"STORE CUPBOARDS" FOR BRITAIN'S FOOD. London correspondence in Journal of American Medical Association, May 2: The British Government has succeeded in ensuring that the people, though rationed, have sufficient food. Ample precautions have been taken against destruction of food supplies by enemy action. The hundredth "store cupboard"— single storied buildings each covering an area of 25,000 square feet — has been completed, and forty more, the beginning of a new program of one hundred and twenty—seven, have been put in hand. The store cupboards are camouflaged buildings of prefabricated steel with concrete floors, brick walls, steel and corrugated asbestos roofs. They are dotted about the country. The hundred completed take something like 1,000,000 tons of the nation's reserve food and raw supplies. They were completed in eight months and each cost \$50,000.

FEEDSTUFFS PUBLICATION FEATURES FIF. The May 2 issue of Feedstuffs is a Wartime Production Number, containing the following statement from Secretary Wickard: "The season just ahead is the most critical in the history of American Agriculture. "The nation has given farmers a war assignment in which they must not fail - the production of foods needed by this country and the United Nations in their fight for freedom. The manufacturers and distributors of feed share the responsibility with farmers for producing more meat, more milk, and more eggs than ever have been produced before in a single year. "The farmers of the nation have accepted the responsibility of meeting these greatly increased production goals, and they have accepted with the full knowledge that there will be many difficulties in the way. -The feed industry can make an important contribution to the war effort by seeing to it that ample supplies of feed are always available to farmers at prices in line with the actual cost of processing and distribution. "Increased production of livestock products is vital to this nation and the United Nations".

9: As one step in the Anglo-American Caribbean Plan to improve living standards in the West Indies, Puerto Rico proposes to establish its own deep-sea fishing industry. The sum of \$1,500,000 has been made available to the Department of Commerce and Agriculture of that island with which to create a large-scale fishermen's cooperative, to purchase boats and fishing gear, and to install refrigeration and other shore equipment. This step, it is hoped, will go a long way toward creating a self-sufficient food supply for the island's population of more than 2,000,000.

These experiments are being followed with great interest by the inhabitants of the other Americas, since an abundant and cheap supply of fresh fish will go a long way toward solving problems of malnutrition and unbalanced diet. Fisheries as a large-scale source of food and commercial byproducts have never been developed in Central and South America as they have been in Europe and the Far East.

MAXIMUM USE OF FARM MACHINERY. War Letter for Agriculture, May 1: USDA War Boards are being encouraged to make plans early which will result in the greatest possible use of farm machinery in 1942. Especially important is the need for getting maximum use of combines and other harvesting machinery Increase in the use of combines will decrease the amount of binder twine needed this year.

The Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., May 14, 1942

WEATHER AND CROPS. Weekly Weather and Crop Bulletin, May 13: In much of the persistently dry eastern area rainfall was insufficient and moisture is badly needed, especially from the Potomac Valley southward. Rains improved the forest-fire situation, but drought is still widespread from Mississippi and central Tennessee eastward and northeastward to the middle Atlantic area. In the Ohio Valley soil was improved by rain. Warm, sunny weather would be helpful throughout the central third of the country. Farm work made good progress, except in some drier southeastern sections and parts of the interior where fields continue too wet.

In the eastern Ohio Valley recent rains improved winter wheat, especially in drier sections. Scattered rains were helpful in Northeastern States, but in the Southeast continued dryness has been unfavorable. In the principal winter wheat belt conditions continue favorable. Seeding of spring wheat is nearly completed and the crop is doing well generally.....

Corn needs warmth in interior valleys and drier weather in many places to facilitate planting which made only fair progress.... In the Cotton Belt normal warmth prevailed in more eastern and western portions, but temperatures were subnormal in central portions, especially the north-central. Rainfall was light or lacking east of the Mississippi River, but was moderate to heavy in many western parts of the belt. In the Southeast, truck gardens, and miscellaneous crops need rain, with condition poor to fair in extensive areas. In north-central States there was damage from frosts to tender truck. Improvement was noted in Texas, but in many western areas there were extensive reports of frosts, but damage was not severe. Fruit prospects continue good in most localities, but citrus groves need rain in Florida. Pastures need rain in the Southeast and Middle Atlantic States, but elsewhere in the East they are in fairly good condition. Pastures and ranges are in good to excellent condition in most of the West. Livestock are in fair to good shape.

INTERSTATE TRADE BARRIERS. United States News, May 15: State governments were told to remove local legal barriers that hamper the war effort or face federal intervention. A meeting of State representatives heard civilian and military authorities, from President Roosevelt down, spell out the complaints: Regulations on the size, weight and height of trucks which obstruct hauling; restrictions on the length of freight trains which slow down transportation; local building codes which require excessive use of critical materials; dairy regulations which hamper milk purchases for the Army, and "make work" union rules which waste skilled labor.

ARGENTINE SCHOOL LUNCH PLAN. Consumers' Guide, May 1: A typical lunch served to children in an Argentina school lunch program includes a vegetable and rice soup, a meat dish, bread and butter, and raw or cooked fruit. About 40 percent of the cost of an extensive program of school meals is borne by Government agencies, while 60 percent of the cost is supplied by parent organizations. An important part of the food served in school lunches is produced in school gardens operated by parents and students. Schools located far from main railroads or main highways, are centers of education for parents as well as children. In 1939 some kind of meal was served at school to 628,709 school children in Argentina by public and private organizations, including the "Cup of Milk" and "Crumb of Bread" societies.

Part of the job of Argentina's Army is to feed school children. Where Army barracks are nearby, school children troop off to them for lunch. Where the barracks are not conveniently located, mobile canteens deliver hot meals to a school. This way 71 hundred school children get hot meals daily. One school lunch history sums up the program's achievements. At a school 6 days by ship from Buenos Aires, 280 kilometers from the nearest railroad, in a region where the diet commonly excluded green vegetables and where none was grown, a school teacher got his students parents to help him with a school garden. As a result everyone in the region now grows and eats green garden vegetables, and a greatly improved school lunch is served at a cost to the government of only \$89 per month.

EIRE IN MARKET FOR U.S. COTTON YARNS. Foreign Commerce Weekly, May 9: Eire manufacturers of hosiery and cotton piece goods desire to import cotton yarns from the United States, and arrangements have been made to transport these shipments on Irish ships. During 1940 imports of cotton yarns amounted to between 10,000,000 and 12,000,000 pounds, of which approximately 6,000,000 pounds went to the weaving trade, 3,000,000 to hosiery mills, and the remainder to thread, twine, and sack manufacturers. About 90 percent of the yarn supplied was received from the United Kingdom, but the quota has now been drastically reduced, and it is necessary to obtain supplies from other sources.

LOCAL DELIVERIES CURTAILED TO SAVE EQUIPMENT. Victory, May 5:
Joseph B. Eastman, Director of Defense Transportation, has issued a general order curtailing local delivery services as a means of conserving transportation facilities and equipment. The order prohibits most special deliveries and "call-backs," and limits the number of deliveries and the mileage of local delivery carriers. Effective May 15, local carriers are forbidden to make any special deliveries except to hospitals and the armed forces of the United States, and except emergency deliveries of supplies necessary to protect the public health, life and safety.

LIGHTWEIGHT CONCRETE. Business Week, May 9: One of the most recent substitutes for critical building supplies in England is a concrete-like product which contains a large proportion of sawdust and is called Nashcrete for its inventor, T.F. Nash. Advantages claimed for Nashcrete over ordinary concrete are that it is considerably lighter, that it can be sawed or nailed like wood. Another advantage, from a British production standpoint, is that the material is so light that women can do most of the work, including tending concrete mixers.

PLANTS AND MALARIA CONTROL. Journal of American Medical Association, May 2: Plant scientists may aid in the control of malaria by determining the relation of each type of plant to anopheline propagation and by devising methods for holding objectionable species in check. An example of this type of work is described in a recent report on plant investigations carried on by the Tennessee Valley Authority during the summers of 1937 to 1940. One object of this study was to minimize the breeding of mosquitoes through proper preparation and maintenance of reservoirs. The study of obnoxious plants is fundamental to adequate maintenance of reservoirs and permits an intensive campaign to prevent or limit the colonization of certain critical species. The importance of aquatic and semiaquatic vegetation and of flotage in connection with the problem of malaria control in the Southeastern States has been emphasized. The attention being paid to this aspect of the problem by plant scientists constitutes a significant, albeit inconspicuous, service in the interest of public health.

LUMBER IN THE WAR EFFORT. Farm Journal, May: Lumber is one war product that has been neither too little nor too late. The government made almost impossible demands. It had to have lumber for whole army camps delivered on the spot within three weeks — it suddenly had to have keel timbers, 108 feet long, for mine-sweepers — it had to have wood trusses 130 feet long to replace steel beams in supporting roofs for vast armories, hangars and the mold lofts where whole sections of ships are laid out. It got them all. Meanwhile country lumber dealers received almost all types of lumber they needed.

Partly this was because the lumber industry was over-equipped 260% with sawmills before the war. Partly it was due to new "panzer" machinery brought into the woods. It used to take two good men two hours to topple a big tree with a cross-cut saw. Now they set a power saw up against it and let 'er go, and the giant crashes in just 18 minutes. Then there are the huge caterpillar tractors, powerful as a medium tank, and the "Blue Ox" truck. Building the cantonments was the biggest carpentry job in history, yet an even bigger job of camp building lies ahead. Just packaging war materials takes tremendous amounts of wood and paper. To crate a big airplane requires as much lumber as a five-room house.

AGRICULTURAL PROGRAM IN PANAMA. Bulletin of the Pan American Union, May: At a recent meeting of the National Board of Agriculture (Junta Nacional de Agricultura) of Panama, it was decided that orders for agricultural tools and equipment amounting to \$250,000 would be placed in the United States, in furtherance of the Government's agricultural intensification program for the financing of which a total sum of \$1,000,000 has been allocated.

In connection with the agricultural program, the cooperation of teachers and professors is being sought to wage a campaign of education in the interior of the country. Teachers are being asked to help in educating the campesino (countryman) as to the purposes behind the intensified agricultural program and likewise the significance of the war and its problems.

BLACKOUTS FOR POULTRY FARMS. Poultry Tribune, May: A well planned blackout system for the poultry farm will enable the hens to keep on with their vital task of food production without interruption, according to the members of the poultry blackout committee for New Hampshire appointed recently by the directors of the New Hampshire Poultry Growers Association. Their suggested program of readiness for poultry farms includes the following points: 1. Blackout all working rooms. 2. Arrange to cut off all light circuits by throwing switches for both laying and brooding pens and all outside yard lights. 3. Use care not to upset the routine of layers and breeding hens by cutting off lights. 4. Avoid use of night lights on poultry farms. 5. Mark out plainly the night chore routes, so that the men can do their chores in a blackout safely.

NORTHWEST SYNTHETIC RUBBER INDUSTRY PROPOSED. Business Week, May 9: The Bonneville-Grand Coulee Power Administration is preparing to lead a strong campaign for establishment of a large synthetic rubber industry in the Pacific Northwest. Opening gun in the synthetic rubber drive will be the filing of an exhaustive report completed last month by Bonneville engineers. This report will include specific recommendations on processes, raw materials, production quotas, plant locations, and investment requirements. The report emphasizes the possibility of making Buna S rubber with materials already available or which can be produced in the region.

NATIONAL ACADEMY OF SCIENCES ELECTS MEMBERS. Science Service release, April 28: Two men whose scientific efforts in peace-time have done much toward preparing the nation for its present all-out war effort are among the 15 newly elected members of the National Academy of Sciences. They are Dr. Lyman J. Briggs, director of the National Eureau of Standards, and Dr. Thomas Midgley, Jr., of Worthington, Ohio, petroleum chemist who developed tetra ethyl lead gasoline. Election as Foreign Associate of the Academy, one of the highest honors in American science that can be conferred on a foreigner, went this year to only one person, a Chinese: Dr. Robert K. S. Lim of Peiping Union Medical College.

N.Y.C. EMERGENCY FOOD DISTRIBUTION. Butchers' Advocate, May 6:
The Marketmen's Association of the Port of New York is completing plans
for relocation of markets in event of enemy action. Designed to keep
up a constant flow of food supplies into the metropolitan area should
bombing or fire disrupt usual services, the plan provides for five alternate
locations for food supply houses. Research figures show that an average
of 4.6 lbs. of all kinds of food are eaten each day by every person in
the Metropolitan area. This means that over 27,000 tons of food must
reach our food distributors every day, via railroads, boats and trucks
on various traffic lanes.

CAFFEINE FROM MATE. Agriculture in the Americas, May: A factory has been established in the State of Sao Paulo, Brazil, for the extraction of caffeine from mate, the tea of South America. It is estimated that the factory will use 6,000 kilograms of mate per day and will produce 60 kilograms of caffeine, enough to meet about half the caffeine consumption of the entire country.

The Daily Digest

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Washington, D.C., May 15, 1942

VALUE OF FEDERAL RESEARCH. Article in Free World, May: The returns on research by the Federal Government usually appear in the form of social dividends, hence the actual monetary value of its projects is extremely difficult to appraise. However, some attempts have been made to calculate the return on investments in basic research. For instance, it has been estimated very conservatively that the returns on research projects carried on by the Department of Agriculture represent about \$500 for every dollar invested. On the other hand, figures prepared a few years ago by the British Department of Scientific and Industrial Research indicated that there was an average return on the pound spent of 800 percent per year, though in favorable cases this figure rose to 10,000 percent, just as it sometimes does in Washington, D.C. The paradox is that so profitable an investment as basic research has been chronically and habitually short of funds for many years. This has been because the monetary returns were not easily calculated, whereas the monetary returns of applied research quickly became evident in a firm's profits and could be computed with reasonable accuracy.

POST-WAR PLANNING. Article in Christian Century, May 6: If we are to gain anything substantial from this war it must be this. As a result of war production we shall increase the capacity of both our industrial and agricultural machines. We shall have both running at top output with maximum employment. This we can do by government financing and so long as we produce primarily the supplies and equipment required for the efficient destruction of human life and property. Why can we not do the same sort of thing at peace in the field of consumer goods?

The National Resources/Board is right now attacking this important problem. Technology has enabled us to afford waste. Yet surpluses are actually the assets of our civilization. The need for an enriched life and culture can be used to release the social and technological energy required to produce the things which will fulfill that need quite as surely as can the need for instruments of destruction excite increased production by extra-economic processes. In its booklet, "After Defense --- What?" the Board has outlined its major objectives.

STEAM BATH FOR HOG HOUSES. Country Gentleman, May: A steam bath for swine farrowing houses is the latest innovation in controlling roundworms and other parasites. An outfit was developed by Edward E. Freeman, who has used it for two years on his Illinois farm. The University of Illinois borrowed it for a demonstration. Freeman mounted an old stationary boiler on a pair of rubber-tired wheels, with small steel wheels in front. Its capacity is 450 gallons, enough to last  $2\frac{1}{2}$  to 3 hours of steaming. Heretofore cleaning has been accomplished by scrubbing with lye in boiling water, I pound to 30 gallons. Freeman's steam bath, which also provides heat necessary to kill roundworm eggs, is quicker and easier.

FARM TO MARKET. United States News, May 15: Agriculture Secretary Wickard warned that war strains on the nation's transport system are placing "serious obstacles in the way of getting food to American consumers." The Office of Defense Transportation prohibited grain shipments over the Great Lakes except by special permit, in order to assure cargo space for iron ore.

RUBBER IN THE WAR PROGRAM. Farm Journal, May: A battleship uses 150,000 pounds of rubber (as much as there is in 10,000 automobile tires); a medium tank, 1,750 pounds. Bullet-proof gas tanks on one of the famed "flying fortresses" take over 1,200 pounds. Each tire on the main landing wheel of the U.S. Army B-19 bomber weighs half a ton. Tires are being made for planes, trucks, patrol cars, jeeps, motorcycles, gun carriages and other pieces of mobile military equipment. Other specialized rubber products being turned out for war include barrage balloons, flotation bags, moisture-proof packages for rations, gas masks, bulletproof gas tanks, parachute seats, lighting buoys for seaplanes, and so on.

INSECTICIDAL PLANTS IN THE AMERICAS. An article by this title, in the Bulletin of the Pan American Union, May, says: In the world-wide search for insecticides, men have found over 1,200 plants whose roots, leaves, flowers, wood, seeds, bark, or essential oils are said to be fatal to insects of one kind or another. The countries of the Western Hemisphere are the natural habitat of many of these insecticidal plants. The discovery, in recent years, of one plant after another that has commercial insecticidal value suggests there must still remain in Latin America a significant number of insecticidal plants which are as yet unknown in commercial channels. The discovery of these plants, which is sure to come in time, will be vital to the agricultural programs of our American Republics.

In Haiti the pepper is used to discourage ants from pillaging seedbeds and bitterbush is used as a general insecticide. The people of that country employ the roots of the vetiver plant in wardrobes to discourage clothes moths. Vetiver root is also used in Haiti to destroy plant lice and bedbugs. The cucaracha herb of Mexico and Guatemala is a promising insecticidal plant. As yet it is of value only in local village commerce, where it is bartered in the market places in small amounts. Ground to a powder it is effective in destroying head lice and cockroaches. Just as cedar-wood chests are used for the storage of valuable clothing to protect it from the moths and other destructive insects, so, too, are boxes made of West Indian quassia wood used for that purpose. Good fly paper can be made or blotting paper soaked in a sugared extract of that wood. An insecticide, made from an infusion of quassia chips is sometimes used to protect the bop plant. Nicaraguans are said to use as insecticades "princamora, " and "zorrillo." In Venezuela rosemary, bayerin oil of Pimenta acris, and oil of eucalyptus are all common insectiondes. The giant ants, "bibiliaguas," of Cuba are reported to be repelled by the Datura arborca, which grows in that country. These are only a few of the hundreds of plants used as insecticides in isolated communities throughout the length and breadth of our hemisphere.

SAVE COSMETIC CONTAINERS. Victory, May 5: American women can help the war effort by saving the increasingly precious metal containers in which they buy their lipsticks, their toiletries, and other beauty aids.

USES OF CACAO-LIVER OIL. Agriculture in the Americas, May: From Brazil comes news of the use of oil from the liver of the cacao, a Brazilian fish, as a substitute for cod-liver oil in the preparation of concentrated fattening foods for animals. Other uses of cacao oil, as reported by the Sao Paulo Department of Agriculture, include soap and candle manufacture, tanning, and as a lubricating oil when combined with margarine. Production can be increased considerably if there is sufficient demand for the cacao livers.

All winter the warm felt boots of the Russian soldier have been cited as a primary reason for his ability to survive and flourish in sub-zero cold while many of his nondescriptly shod Nazi opponents froze in their tracks or retreated. Quite uncited, but scarcely less vital to all-out military operations, have been a host of unpublicized wool felt applications—landing pads for parachute troops, oil-retaining washers for the shafts and bearings of tanks and planes, storm helmets to protect the faces of sailors against the winter blasts of the North Atlantic, lubricators for machine guns—more or less hidden applications ranging from the raiment of the armed forces of the world to their implements of destruction.

Whether its various types are used for warmth, resilience, vibration absorption, wear resistance, liquid resistance, liquid permeability, acoustic insulation, or other physical characteristics, felt can be worked by simple methods. It requires no special forming dies, molds, presses, curing operations, or supplementary finishing treatment unless desired for an unusual application. Once cut, skived, turned, or pressed, felt parts are ready for instant use. That's why felt is destined to play an important role in replacing some of the rubber and cork, and even some of the metal that we are not going to get for the duration.

MEXICAN EXPORT RESTRICTIONS. Foreign Commerce Weekly, May 9: Garlic and manufactured articles of wool and wool mixtures have been placed under export control in Mexico and made subject to prior export permits issued by the Department of National Economy before exports will be permitted. Hair or bristles of hogs, horses, and cattle have also been added to the list of products under export control in Mexico and made subject to the same export-permit requirement. Exports of these products from Mexico will be authorized by that Department only when needs of the domestic market have been satisfied.

1942 LIVESTOCK INTERNATIONAL CANCELLED. National Provisioner, May 9: Cancellation of the 1942 International Live Stock Exposition, which had been scheduled to take place next December, was voted at the annual spring meeting of the exposition's board of directors. The board's action was taken following word from Joseph B. Eastman, Director of Defense Transportation, stating that common carrier facilities will be taxed to the utmost with the handling of troop movements and travel directly connected with the war effort. The communication states that ODT will regard with disfavor any addition to the burden of travel incident to meetings connected with agricultural expositions and displays.

WIS. EXPANDS DRIED-EGG PRODUCTION. Madison report in Poultry Supply Dealer, May: Wisconsin's 12 egg-drying plants during the first quarter of 1942 exceeded the entire nation's production of dried egg products for the seven years 1927 to 1933, according to the state Department of Agriculture. The egg powder is intended primarily for shipment under the lend-lease program. A total of 8,150,017 pounds of dried eggs and 75,400 cases of shell eggs were graded or sampled and checkweighed by the department during the first three months of 1942 for delivery to the AMA. C. Howard King, State poultry and egg specialist, reports that 1,733 railroad cars as well as space on ships and in refrigerator warehouses was saved during the three-month period through the egg-drying industry. Normally 2,066 expensive, well-insulated refrigerator cars would be needed to ship that quantity of shell eggs, but after drying, only 233 cheaper, non-insulated cars were required to carry the powder.

CANADIAN COTTON SUPPLY. Canadian Textile Journal, May 8: With approximately 65 percent of primary cotton industry output in Canada earmarked for direct and indirect war orders and essential needs of the present war economy, the quantity of goods available for less essential civilian trade is steadily declining. Direct and indirect war orders accounting for 40 percent of total output comprise 23.9 million yards of uniform cloth, etc. required before the end of September, around 8 million square yards of cotton duck before the end of 1942 and large quantities of yarns. Organization of the cotton textile industry in Canada for war and civilian trade production has already been carried forward under the Wartime Prices and Trade Board administration along similar lines as are now being undertaken in the United States, under the War Production Board. Canadian supplies of raw materials are adequate for 1942 needs with commitments already made for large quantities of American and Brazilian staple.

STUDY ON CREAM DELIVERY ROUTES. Dairy Record, May 6: Elimination of duplication of cream routes is proposed in a report recently issued by the Iowa Experiment Station. The report stresses the necessity for curtailment of excessive service to farmer patrons as a tire conservation measure. A study of 107 Iowa cooperative creameries revealed that the size of the trade areas which they served as averaging 490 square miles. One-third of them received less than 30% of the butterfat sold within the areas served. Two-thirds received 50% or less. The average of the 107 was 47%, and the range was from 10% to 100%

Four possible approaches to the problem are listed: (1) Allocate territories for each creamery and deny farmers a choice of creamery. (2) Place control of creamery routes in hands of creamery management, denying haulers the right to go where they please for cream. (3) Lay out hauling units and deny the right of the individual farmer or creamery to choose hauler. (4) Lay our hauling areas, same as 3 plus grading, on basis which provides farmer may choose outlet on basis of price and grade.

VEGETABLE OILS, FATS SUPPLY IN MEXICO. Latin American News Digest, May 8: Mexico faces shortage of vegetable oils and fats, according to report received from Mexico City. Copra, by far the most important source of oil, has been imported. Now that such imports are no longer available, there will be a serious shortage of oil for use in soap manufacture. Edible oils will not be affected, as they are chiefly produced in Mexico. (Foreign Crops and Markets)

# The Daily Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture:

Washington, D.C., May 18, 1942

AGRICULTURAL TEACHERS AID WAR AND POST-WAR PLANNING. Article in Agricultural Education Magazine, May: The 9,000 agricultural teachers are one of the largest and best equipped corps of professional workers in rural America. In thousands of local communities these teachers already are assisting in the FfF program, the farm machinery repair drive, the training of skilled workers for agriculture, and other activities. Many are also cooperating in agricultural planning in their localities, helping farm people and public agencies plan together for war and post-war adjustments....

One of the major functions of cooperative agricultural planning is coordination of the activities of all agencies interested in helping the farmer and careful consideration should be given as to how the public schools can participate most effectively. Representatives of the State departments of education are serving on State agricultural planning committees in at least 24 States. Similarly, a considerable number of county and community planning committees have one or more public school representatives as regular members. Altogether, public school representatives were reported on 63 percent of the county planning committees last year. These representatives are usually vocational teachers and county superintendents of schools.

RANGE-PLANT UTILIZATION ON SHEEP RANGES. Soil Conservation, May: With war time demand upon ranges, it behooves conservation agencies and the livestock producers to give greater attention to local conditions, including climate, soil, slope, past use, plant composition, density, etc. One of the principal activities of the Soil Conservation Service in the Western United States has to do with helping ranchers improve their range management practices. It is a task that requires use of all available information, and further study, to ensure adaptability of plans to local conditions. (The article tells briefly the method being used to study range utilization in one Wyoming area, a 45,000-acre winter sheep range near Riverton.)

TEST HEELS OF RECLAIMED RUBBER. Hide and Leather and Shoes, May 9: The Office of Price Administration announces that many policemen and mail carriers in Washington are wearing heels made of reclaimed rubber to determine the quality and durability of such products. The heels are made from rubber which is converted from scrap material gathered from jurk yards throughout the country. The experiment on "professional" walkers is a supplement to laboratory work already done by technical experts of the consumer division in cooperation with the U.S. Bureau of Standards.

PASTEURELLOSIS OF CATTLE IN BRITAIN. North American Veterinarian, May: The existence of true hemorrhagic septicemia in the cattle of Great Britain has been doubtful, but from time to time British veterinarians have reported cases of acute fatal illnesses which, on further investigation and bacteriologic findings, were suggestive of this disease. Kyaw, of the Cambridge Institute of Animal Pathology, after making a study of the infections observed in British cattle which were termed hemorrhagic septicemia and comparing them with true hemorrhagic septicemia as observed in other countries, comes to the conclusion that these infections may be caused by an organism which he suggests be called Pseudo-pasteurella pneumonia (sp. nov.); these organisms bear some resemblance to the Pasteurella group, but are not members of it, and are associated with pneumonia.

SCHOOL LUNCH PLAN IN COLOMBIA. Consumers' Guide, May 1: In Colombia's big and little towns school lunches or breakfasts were provided for more than 30 thousand children in 1939. Government aid to the programs is in the form of grants, but school gardens supply most of the food. Children pay for their meals by working in the gardens or by bringing food from home. Diets for school lunch programs are worked out by nutrition experts under the supervision of the National Nutrition Council. School lunch programs in Colombia date back to 1914.

ARGENTINA PROTECTS COTTON PRICES. Foreign Commerce Weekly, May 9: The Argentine Ministry of Agriculture has signed an agreement with cotton-mill owners whereby the latter will pay 15 centavos per kilogram on all cotton fiber consumed from May 1, 1942 to April 30, 1943. This is being done to stabilize the market and protect prices. The fund will be used for the purchase and retention in Argentina of the unsalable portion of the crops until they can be marketed abroad.

HEAVY SOLE LEATHER RESERVED FOR MILITARY. Victory, May 5: WPB has ordered the entire stock and production of heavyweight sole leather set aside to meet military and Lend-Lease requirements for shoes. Previously, 80 percent of such sole leathers was set aside, but that was found insufficient. The WPB leather and shoe section explained that only heavyweight outer-sole leather is affected by the order, leaving for civilian shoes the entire supply of ordinary and lightweight outersoles, the kind of soles used for most civilian purposes except in heavy work shoes.

RAYON IN WARTIME. Farm Journal, May: The 1941 consumption of rayon in the United States was 586,016,000 pounds, a high record. This fabric, made largely from wood pulp, will probably be the most easily obtainable fabric during the war. But it, too, is used for many purposes in the Army. For instance, the tough, snag-proof cloth that the Army has adopted for the parachute troop uniforms is rayon. So are the high tenacity yarns used to make tire cords for heavy-duty Army trucks and reconnaissance cars. In combination with rubber and cotton, rayon is employed to make self-sealing gasoline tanks for combat airplanes.

WAR REMOVES BANANAS FROM D.C. GROCERIES. Latin American News Digest, May 8: Ships which formerly carried bananas are now being used for other cargoes, and the bananas are being used to grease shipyard ways, rather than more valuable greases needed elsewhere in the war effort. (Washington Post)

STANDARD FOR HOUSEHOLD INSECTICIDE, Pathfinder, May 16: The National Bureau of Standards, with the approval and acceptance of the National Association of Insecticide and Disinfectant Manufacturers, Inc., has promulgated a Commercial Standard for Household Insecticide (Liquid Spray Type). That label means that the insecticide, when used always as directed, is harmless to man and warm-blooded household animals; will not stain fabrics, wall paper or other furnishings that are not stained by dry cleaning fluids; will not contaminate closed packages of food; will not corrode metals; and will not have any objectionable odor.

URGES CONSERVATION OF FARM WOODLOTS. Country Gentleman, May: Out of the farm woods is streaming an ever-increasing flow of saw logs, poles, piling, bolts, railway ties, pulpwood, bark for extract, and many other derivatives of the tree. Wood is needed for pontoon bridges, gunstocks, work-shops, docks, fences, tank traps, cantonments, workers' houses, factories, and on down an endless list. The wartime demand for lumber and other woodland products is putting an extremely important question squarely to the 3,500,000 farm families who own 185,000,000 acres of the Nation's forest lands. It is: "Are we going to wreck our farm woodlands to sell timber?" Of course, if there were no other choice b bestructive cutting of farm woods to get needed supplies the question would be an idle one. But there is an alternative -- both profitable and parantic. That alternative is improved farm-forest management of a kind that will produce much-needed wood and wood products now, put the farm woods in shape to produce more and better timber in the future, yield more farm income all along the line ....

Much progress is being made along the whole broad farm-forest front by farmers, with the aid of state foresters, state agricultural colleges, and the programs of the Department of Agriculture. The many years of work under the Clarke-McNary Act, and within the past few years under the Norris-Doxey Act, have grown into an extensive cooperative Federal-State educational and assistance campaign that deals with all facets of farm-woodland management, including tree planting, harvesting, utilization and marketing. These outposts of farm-woodland improvement are scattered from Maine to California and from Oregon to Georgia. Since the first appropriations were made. available for these projects in 1940, fifty-one of them have been organized in thirty-seven states. More than 600 farmers, with 81,000 acres of woods, are participating .... In cooperation with land-grant colleges, an educational program is under way on forest management, and seventy extension forestry specialists are working with farmers, through county agents, to solve their forestry problems, Under the AAA program farmers are getting special payments for improving and protecting their wood lots. And the Soil Conservation districts program promises to be a potent force in the direction of woodland improvement.

BEPQ ESTABLISHES PARASITE STATION AT MONTEVIDEO. Agriculture in the Americas, May: Following the closing of stations in Europe and the Orient, the Bureau of Entomology and Plant Quarantine has established a new parasite station at Montevideo, Uruguay. Most of the European staff has been transferred to South America to continue the study of parasites destructive to the boll weevil, pink bollworm, sugar-cane moth borer, white-fringed beetle, and other Latin American insects.

FEDERAL EGG GRADING STARTED IN LOUISIANA. Baton Rouge report in Poultry Supply Dealer, May: Louisiana held its first egg-grading school recently for the purpose of training inspectors in the qualifications necessary to meet requirements of the AMA's egg-buying program. The school was also designed to initiate federal egg-grading work in the state. Co-operation in developing the project was given by the Louisiana State Department of Agriculture, which will provide funds to pay for the inspection service of eggs bought under the AMA program.

ODT URGES REFRIGERATOR-CAR CONSERVATION. Creamery Journal, May: The Office of Defense Transportation says that certain commodities such as canned goods, and bottled goods which have been loaded in refrigerator cars during the winter months to prevent freezing damage can move without damage in good tight box cars during the moderate weather of spring and fall months. Substantially greater tonnage can be loaded in box cars than in refrigerator cars and since much of this traffic both box car and refrigerated moves in the same general direction, the use of refrigerator cars is a waste of cars and motive power except when shipments move in the general direction of the current movement of empty refrigerator cars.

NEW WPB RESTRICTIONS ON IRON AND STEEL PRODUCTS. War Board Memorandum No. 44: The War Production Board has put into effect an iron and steel conservation order which will soon halt the manufacture of more than 400 civilian products, among which are a number widely used in agriculture. According to the order, farmers will not be eligible for materials for roofing and siding except for maintenance and repair purposes. The total manufacture of roofing and siding for the remainder of 1942 is restricted to 20 percent of the output of the individual manufacturer in 1940. The terms, "iron" and "steel" do not include screws, nails, rivets, bolts, strapping, or small hardware for joining and other essential purposes.

HOME CANNERS MUST FILE CERTIFICATE FOR SUGAR. War Letter for Agriculture, May 11: Farmers and others who want to obtain allotments of sugar for home canning provided by OPA rationing regulations should see their local rationing boards. To obtain a canning allotment, individuals will be required to fill out a "Special Purpose Application for Sugar Purchase Certificates. Copies of this form have been released to local rationing boards to be made available to wholesalers and retailers, industrial and institutional users, as well as individual consumers. Persons who wish to make use of the special purpose application for home canning must explain in detail to the rationing board the purposes for which the sugar is to be used. In cases where these applications are not available, a person in immediate need of sugar for a special purpose may specify his requirements on an ordinary piece of paper.

DEHYDRATED APPLES BOUGHT BY ARMY. Science Service release, May 8: One million pounds of dehydrated apples are being bought by the Army for apple sauce, apple pie and eating with cereal. One part (by weight) of the dehydrated apple "nuggets" equals seven parts of sauce or pie filling, and is superior in flavor to the dried fruit. So far the apple is the only dehydrated fruit, except the lemon, being purchased for U.S. troops, because for most fruits now bought on a quantity basis the dried form is satisfactory. The dehydrated fruit has a "delicious, tart flavor," according to the Army.

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### The Daily Digest

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U.S. Department of Agriculture

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Washington, D.C., May 19, 1942

SAFEGUARDING NEW YORK MILK SUPPLY. Milk Plant Monthly, May: The N.Y. Metropolitan Defense Transport Committee, composed of key federal, state and municipal officials, has been working for nearly a year to plan for transportation emergencies of all kinds. It is ready now to go into action if the need should arise. On the all-important question of safe-guarding the supply of milk and other essential farm produce destined for the New York market, the committee has worked closely with the New York City Department of Markets and the New York City Police Department. Its program involves the cooperation of every local and state police department in the Metropolitan Area, as well as all the trucking companies, commission merchants, receiving terminals and processing plants in the area.

Emergency truck control stations have been designated at key points on the feeder highways leading into New York at the outer fringes of the metropolitan area. In the event that a certain area is blocked off to traffic by bombing or sabotage, word will be flashed to the control points by police teletype, by telephone or by messenger and, after receiving such word, all trucks passing the control station will be halted by signal. Trucks destined for the destroyed terminal area will be rerouted to an alternate receiving point. These alternate pasteurizing plants and market areas as chosen by the industry and public agencies are being listed in card files in the central control station. Duplicate cards will be filed at all outlying trucking control stations.

ELECTRIC KILN FOR SWEETPOTATO STORAGE. Rural Electrification News, May: Farmers near Morgantown, Miss., have been storing their sweetpotatoes in an electrically heated potato kiln built by students in the vocational education classes. The kiln is a wooden building, 12 feat by 15 feet, with a capacity of 1,000 bushels. It is heated by four electric stoves. Finding that farmers who used these potato kilns doubled their money on "sweets" last year, the school, REA officials, farmers, and the county vocational instructor worked out plans for a double-duty community kiln which can be converted to a cold-storage shed for Irish potatoes. Cost of construction was between \$150 and \$200. Students built crates to hold the potatoes at a cost of about 22 cents each. Storage charges to farmers are 10 cents per bushel.

INDIAN SUMMER RASPBERRY. American Fruit Grower, May: Among varieties of raspberries recommended by the New York (Geneva) Station for commercial planting is the Indian Summer raspberry. This raspberry is a large fruit, good in quality, with large vigorous plants. It is the first autumn-fruiting variety which the station has recommended as worthy of further trial. For summer fruiting it is not equal to the common commercial varieties in view of the softness of the berries and their tendency to darken soon after picking.

April: The millions of dollars invested in research by the automotive industry are paying off many fold as the pinch on critical materials gets increasingly severe. Materials developed by automotive engineers in peacetime, but "shelved" because they were then too expensive or too hard to work, are not being welcomed into war production factories. The saving of 41,000 pounds of nickel on one company's contract for a small combat vehicle is one example. In the manufacture of an anti-aircraft cannon, a laboratory recommendation has saved to date 420,000 pounds of nickel and 257,000 pounds of chromium on one part alone. On another part, a change from copper-tin to copper-silicon castings is saving 20 pounds of tin per gun. In the manufacture of a shell clip, a change from a die casting to a sheet stamping has saved 3,000,000 pounds of aluminum on contracts received to date. In addition it has already saved about \$2,000,000 for the U.S. Treasury through lowered costs.

URGE FOOD PRESERVATION WITHOUT TIN. Victory, May 12: Inasmuch as more drastic tin conservation measures may be necessary before the beginning of the 1943 packing season, canners were recently requested by the WPB containers branch to give thought to other forms of food preservation such as freezing, dehydrating, or packaging in materials less critical than tin. In addition, the branch, after consultation with the Department of Agriculture as well as with the WPB branches, urged careful planning of the production of "secondary" vegetables and the harvesting of "secondary" fruits this year so that the tin allotted for the packing of these products will be adequate for the amounts produced.

PERU FURNISHES TANNING EXTRACT FOR U.S. Science Service release, May 4: With Eastern Hemisphere sources hampered by the war, the United States is looking southward for raw materials needed for tanning Army footwear. Already tara from Peru has replaced sumac from Italy, balonia from Greece and myrobalams from India in tanning blends, used in this country. Exports from Peru have risen rapidly in late years — 490 tons in 1939 and nearly three times that amount in 1941, largely to the United States. It is now urged that plantations of tara be established on thousands of uncultivated acres along the west coast of Peru. Tara bears a long pod filled with seeds. Pod and pulp which surround the seeds have a tannin content of 50% to 60%, even higher than that in sumac. Tara is further desirable because it imparts little color to leather. U.S. Department of Commerce economists feel that if Peru will develop production facilities, she will find a rich and permanent market in the United States. The tanning business in this country in 1939 — the last peacetime year — was greater than in all of Europe, including the United Kingdom.

TRAVELING LIBRARIES IN MEXICO. Consumers' Guide, May 1: Education takes to wheels to reach remote villages in Mexico. Not only are libraries sent into the country, but public health brigades, made up of a doctor, dietitians, and nurses, reach the people where they live. These brigades pitch a clinic in an open square the way you might pitch a tent. "Farmers and workers," the lettering reads on a truck, "this is your library, gather around."

DRAINAGE AND THE FfF PROGRAM. Soil Conservation, May: Of all the farm practices that can increase our food production, there is none that is more important or that will yield more immediate results than adequate drainage. The low farm incomes of the past two decades have made it difficult to raise sufficient funds for maintaining drainage improvements, and the result is that literally millions of acres of poorly drained fertile land now are unable to produce more than a partial crop. This land requires the same amount of labor for cultivation, the same quantity of seed and fertilizer, and uses the same machinery as land capable of producing a full crop.

EARLIER HYBRID CORN. The Minnesota State Experiment Stations now have a proved corn hybrid that ripens satisfactorily in eighty-five days. Their No. 800 just getting into quantity seed production, is rated as an 82-88-day hybrid. The new hybrid has yielded as high as fifty-five bushels per acre within 100 miles of the Canadian border. Over a period of three years, tested under varying conditions and seasons, it has averaged forty-nine bushels to the acre. Hanoy's strain of Minnesota 13, standard farnorth open-pollinated variety for many years, fell short of that yield by twelve bushels. Minhybrid 800 has a firm yellow ear that compares well with longer-season varieties, and the stalks stands very well.

ARGENTINE NATIONAL TOBACCO INSTITUTE. Agriculture in the Americas, May: Argentina has added a National Tobacco Institute to its Ministry of Agriculture to formulate national policy in encouraging and improving Argentine tobacco culture and promoting marketing of the crop.

MASS. STUDENTS TO REGISTER FOR FARM WORK. Farm Journal, May: High school boys and girls in Massachusetts will be registered for farm work before school closes this spring. Experience and qualifications will be listed and this information will be available locally to farmers and to the Massachusetts State Employment Service with district offices throughout the state. Local "Minutemen" will determine from their neighbors just how much labor will be required this spring and summer. All Future Farmers in the state will be utilized to the fullest extent in poultry work. These boys proved to be valuable help last year. Some of the New England states also have inaugurated a plan of giving recognition to boys and girls for the completion of a certain number of hours of farm work.

DEHYDRATED FOOD INDUSTRY. Farm Journal, May: The dehydrated food industry, though centuries old, is being revamped to suit modern standards. One concern has worked with nearly a hundred food combinations; from cabbage and cranberry flakes to special combination parcels for overseas shipment. In the Army's Chicago Quartermaster Depot they test hundreds of samples of dehydrated foods, not only for looks, texture, and palatability, but for vitamin and mineral content, and "colorability" in extreme climates. Their research chemists work directly with the industry on mothods of preventing vitamin, color and flavor losses.

ARGENTINE HOG SLAUGHTER. Latin American News Digest, May 8:
Argentine hog slaughter increases during first quarter, offsetting decline
in cattle killings for that period. (N.Y. Journal of Commerce)

FREQUENCY OF POULTRY DISEASES. North American Veterinarian, May: An analysis of more than 30,000 autopsies, resulting in more than 17,071 diagnoses, made on chickens from northern California submitted to the state laboratory during a nine-year period, contains material of general interest to the veterinarian engaged in poultry practice. Coccidiosis was found in 23.3 percent of birds of all ages that were examined. and coryza ranked, second, infecting 7.7 percent. The ten other ranking diseases, in order of occurrence, were: intestinal roundworms, paralysis, enteritis, pullorum disease, tumors, gizzard ulceration, fowl cholera, and leukosis. Infectious laryngotracheitis and ruotured yolk were found in 2.6 and 2.4 percent, respectively, of all birds examined. Of the total number of chickens examined. 64 percent were less than seven months old.

RAILROADS ASKED TO AID FARM LABOR NEEDS. Victory, May 12: ODT Director Eastmen has appealed to the eight major railroads serving the Southwest to spread their maintenance-of-way work so that peak railway labor needs will cease to conflict with peak demands for farm labor. Calling attention to the mild weather prevalent in the Southwest through the winter months, Mr. Eastman asked that the railroads plan as much track and roadbed work as possible from January through the spring and early summer months when agriculture's demands are low. He suggested that maintenance-of-way officers check with the U.S. Employment Service in their districts to determine when local peak demands for farm labor are likely to be reached.

LOW COST FOOD IN PERU. Consumers' Guide, May 1: For 6 cents (U. S.A. money) a Peruvian laborer may go to one of 5 popular restaurants, first developed in Peru and operated by the government and buy a meal of boiled meat and vegetables, fish, grilled meat, bread, dessert, and coffee or tea. For 4 cents (U.S.A.) he can get the same meal less one course. The popular restaurants are educational institutions as well as eating places. Lectures and concerts are held in them, and they are a center for talks and exhibits on nutrition. A sick person who cannot go to a popular restaurant gets his meals sent home free. Popular restaurants were first started in 1932.

HOW WAR ATTECTS THE GROCERY INDUSTRY. Farm Journal, May: Before the war broke out in 1939, one of the largest food corporations sold products in 76 export territories, and imported raw food material from 20 foreign countries. By the end of 1941, their export markets were reduced nearly half, and the war played hide and seek with most of their source countries. One food company uses 20 varieties of cocoa beans, and about 50% of these came from South Africa, eight thousand submarine-infested miles away. Nuts from India, coconut from the Philippines, tea from Ceylon, tapioca from Java, coffee from Brazil -- these represent just a few of one company's headaches.

Wise buyers laid in advance stocks of most important items. They cannot count on shipments from even near-by islands, due to the war's heavy demands on our cargo ships. Another way they meet changes which are bound to occur is to increase their research dollars (an average increase of 18% in 1942), so that they will have a next-best plan ready when it's

needed.

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Washington, D.C., May 20, 1942

WEATHER AND CROP SITULTION. Weekly Weather and Crop Bulletin, May 20: While rainfall of the past week relieved the drought in the Southeast and East and vegetation is responding rapidly, there was again too much rain over much of the intrior and Northwest. Generally fair weather, with only light rainfall, was averable in the southern Great Plains. Noisture is still needed locally in parts of the East, principally southern Kentucky and Tennessee, Over the sestern half of the country the week was unfavorable for farm work and crop growth. Heavy rain, snows, in some sections, were widespread, and temperatures were far below normal, retarding growth and slowing germination. It was especially unfavorable for lambs and calves, while frost damaged tender vegetation over wide areas.

Mhile warm, dry weather would be helpful in much of the Winter Wheat Belt, this crop, on the whole, continues to make satisfactory progress.... In the Spring Wheat Belt warm, dry weather is needed. Germination has been mostly good, but growth is slow because of continued rain and unseasonably low temperatures. Other small-grain crops are mostly satisfactory... In most of the interior corn planting made slow to fair progress, largely because of continued wetness. In Iowa progress was fair with planting a little more than half dorie. Little planting was accomplished in the Lake region and westward..... In the Cotton Belt temperatures averaged near normal in the east and considerably below normal in the northwest; substantial rain was wides read over the belt. Rainfall was helpful in the eastern half of the belt, but continued wetness and low temperatures were unfavorable in much of the west.....

Light freezes, with some frost damage to gardens and miscellaneous crops, were reported from many sections of the country from Kansas and Iowa northward.....In the Southeast rainfall was mostly adequate with benefit to truck crops.....The rains in the Southeast were extremely beneficial and pastures are showing general improvement. Additional moisture caused marked improvement in the Middle Atlantic States and the Northeast. In most central sections of the country meadows and pastures are good to excellent. The cool weather in the northern Rocky Mountains retarded growth of grass, while warm weather would be generally helpful over most of the West. Livestock remain in mostly good condition, but shearing was delayed and there were additional losses of lambs and calves on account of cold, wet weather in many Rocky Mountain and Great Basin areas.

MALE-FEMALE PROPORTION IN RURAL ARIAS. Land Policy Review, May: In cities of 2,500,000 and more there are 98.1 males to each 100 females, while in rural-farm areas there are 112.1 males to 100 females. In villages of 2,500 and less there are 104.2 males to 100 females.

wool for SERVICE MEN. Farm Journal, May: It requires 100 pounds of wool to outfit a soldier during his first year, 40 pounds yearly thereafter. If the combined strength of the services rises to 5,000,000 men, the military need for wool will be approximately 250,000,000 pounds. Blankets ordered this year for the men in the service exceeded 10,000,000. Government purchases for 1940 and 1941 totalled 11,500,000. Service uniforms are made of heavier weight cloth than that civilians normally wear. In fact the wool required for clothing a 3,500,000-man Army is equal to the amount worn by a 35,000,000 civilian population.

FURNITURE MAXIES SHIFT TO WAR ITEMS. Victory, May 12: Airplane trainers and gliders instead of wooden office desks; ammunition boxes instead of metal letter-trays and wastebaskets; and airplane fuel lines instead of chrone-plated chair legs — this is the story of the conversion program for the furniture industry, the country's second largest producer of consumers! durable goods. The industry in normal times produces metal and wooden furniture for the home and the office valued at about \$1,000,000 annually, second in dollar value to consumers! goods only to the automobile industry. Today, makers of furniture all over the country are rapidly changing over their tools and facilities not only to the production of wooden airplanes and gliders, but to a wide variety of other war items.

Americas, May: To meet an urgent need in Brazilian rural economy, the Institute of Agricultural Experiment has been created. Here, experimental plans are studied, discussed and, if approved, put into practice throughout the country through 36 experimental substations. Results of these plans, filed and analyzed in a central experiment station, will constitute a source of material for future agricultural planning in Brazil.

HAND POLLINATION OF APPLE ORCHARDS. Country Gentleman, May: Increasing production of a twenty-three-acre apple orchard by 9,000 boxes in one year at a cost of \$700 may seem impossible. Yet Holph Sundquist, of Yakima, Washington, who hand-pollinated one of his orchards, did just that in 1941. He pollinated 800 fifteen-year-old Delicious trees whose previous maximum yield was 7,500 boxes. Last fall Sundquist harvested 16,500 boxes of fruit. John Snider, of Selah, Washington, is another of the many apple growers in the Pacific Northwest who have found han - ollination profitable. Last year he pollinated 600 Delicious trees at a cost of \$287. He picked 11,000 boxes that fall compared with a peak of 5,000 boxes during the previous three years. Neighboring orchards which were not hand-pollinated yielded about half of what they were capable of producing.

Commercial hand-pollination of apples has been provided to a limited extent in the Pacific Northwest for at least eight years. The Washington Experiment Station has been conducting demonstrations for some time.

Apple growers hesitate to make additional expenditures of for example, hesitated before spending \$700 to hand-pollinate one of his orchards. To help him see the value of this practice, Extension men hard-pollinated a tree in his orchard in 1940. This was the only tree in his orchard that had a normal crop that year. As a result, he decided to his h-pollinate this entire orchard the following year.

person in the food industry who is facing technical and scarcity problems should plan to go to the convention of the Institute of Food Technologists, Minneapolis, June 15 to 17. The completed program, to be published in full in our June issue, is devoted entirely to wartime problems, such as substitutes for scarce materials used as ingredients; food packaging problems under today's scarcity conditions; dehydration of foods; foods for the Army; prevention of food stockpile deterioration. Those who are not members of the Institute will be admitted on payment of a modest regristration fee.

ON BRITAIN'S GROCHRY SHELVES. National Grocers Bulletin, May: In England's food stores, most soap is sold unwrapped. Soap powder is sold in bags, but manufacturers claim that they must put soap flakes in cartons, so that they will not become powder. Sugar is also sold in bulk to retailers, and they complain of the waste of the product entailed in weighing up small quantities. It is reported that raisins and butter are also sold unpackaged.

Several companies have gone together to produce standard goods, which are sold in standard packages bearing the names of the brands they replace. Some butter, soap and tooth pastes are sold that way. Cheese is sold in boxes without lids. Foodstuffs may still be packed in cans, but the paper label is limited to twenty square inches.

AGRICULTURE IN THE WAR HEFORT. Editorial in Breeder's Gazette, MayJune: Of course nothing matters except the winning of this war. Gradually
we are adjusting our sights from the long-range goals to immediate objectives.
I mean with relation to agricultural policy. When we do that we feed out
10 million extra shotes and put lard in 350-lb. barrels for shipment to
Russia. We produce 4,200 million dozen eggs and 125 billion pounds of milk
in a year, and rationing in Britain eases up considerably. As Secretary
Wickard said at Enid, Okla., we in Agriculture are doing just as big a conversion job to war production as is industry, but there are no headlines
about it.

URGES PLANTING OF SWEET POTATOES. American Fruit Grower, May:
Sweet potatoes are Louisiana's greatest war food, according to G.L. Tiebout,
Extension horticulturist of Louisiana State University. He points out
that sweet potatoes grow like weeds throughout the State and yet only about
70,000 out of 150,000 farms grow them. The best variety for planting, he
says, is the Unit No. One Porto Rico. He urges the planting of sweet
potatoes to increase food production in the State, especially during the
war.

BETTER MUTRITION IN BOLIVIA. Consumers' Guide, May 1: The Bolivian National Institute of Nutrition is working on plans to extend school feeding programs to all schools. Already in operation are low-cost restaurants for workers, and restaurants for mothers connected with pre-natal clinics. Bolivian nutritionists, like others, have the problem of devising balanced diets which are acceptable to people with long outmoded food prejudices.

TRRIGATION AND FOOD PRODUCTION. Land Policy Review, May: Production on irrigated lands in 17 Western States will make an important contribution to all-out war food production efforts. There are more than 20,000,000 acres of land irrigated in those States, about 3.5 percent of all land or 13 percent of all the cropland. An average of 11 percent of land from which crops are harvested is irrigated.

Despite low yields, crops from this land bulk large in comparison with the value of all crops harvested. In Nevada 98 percent and in Arizona 96 percent of the total comes from irrigated land. In Wyoming, Utah, New Mexico, Idaho, Colorado, and California, the proportion is over 50 percent. The investment in irrigation enterprises on these lands was more than \$1,000,000,000 in 1939, and nearly \$600,000,000 more is invested in land now being prepared for irrigation.

NUTRITION SERVICES IN CANADA. Consumers' Guide, May 1: Canada's new Mutrition Services, operating through the Department of Pensions and National Health, hopes to spread better eating habits even to remote schools like this one which the children reach on horseback. Created in November, 1941, these services have already given meal planning advice to managers of cafeterias in 150 war industries. It has sponsored the formation of central nutrition committees in 6 of the Dominion's 9 provinces. It has given help to 10 special nutrition campaigns, and stimulated new drives in 25 communities. Advertisers and large food industry groups are working with the government in a national drive for better health and greater production through well balanced meals.

FERTILIZER PUT UNDER PERMANENT CEILING. Victory, May 5: The Nation's farmers have been assured by Price Administrator Henderson that the prices they pay for mixed fertilizer, superphosphate, and potash will be stabilized at the levels prevailing since February under a previous maximum price regulation. Maximum Price Regulation No. 135 in effect continues the provisions of Temporary Maximum Price Regulation No.1, which applied to the same kinds of fertilizers and which expired on April 27, 1942. The permanent regulation became effective April 28.

PANAMA, COSTA RICA TO INCREASE ABACA PRODUCTION. Foreign Commerce Weekly, May 2: Plans to increase production of abaca in Panama and Costa Rica are under way. They contemplate the sending of about 20,000 acres of abaca during the next 2 years in Panama and Costa Rica in the hope of being able to make up for hemp shortages. Former sources of supply in the Far East are now under Japanese control.

Two thousand acres of abaca fiber are now under cultivation in Panama, and it is expected that an additional 4,400 acres will be planted this year. Sufficient labor is not available in Panama for the increased cultivation of abaca. However, efforts are being made to obtain labor from neighboring Central American countries.

INTER-AMERICAN SHIPPING POOL. Latin American News Digest, May 8: Formation of pool to alleviate growing merchant marine problem of the Western Hemisphere disclosed by Secretary Hull. A reservoir of more than a million tons of shipping would be created if all the Latin American nations threw their merchant ship tonnage into a pool.

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Washington, D.C., May 21, 1942

PREFABRICATED HOUSES IN UNITED KINGDOM. Foreign Commerce Weekly, May 2: The urgent need in the United Kingdom for economizing on steel, timber, and labor has resulted in production of several distinct types of prefabricated houses for war needs. A concern had developed a system using small panels framed in timber and encased either with weatherboard, plywood, or "Lignocrete," for walls and elliptical span roofs. The three types have a common basis in the method of interlocking the panels. The use of weatherboard and plywood sheathing are generally known, but must be modified for adaptation to the new plan by conventional treatment of external wall faced with building paper under weatherboard and by waterproof felt battened at joints for weatherproofing. "Lignocrete" is a composition material prepared from softwood sawdust, chalk flour and cement.

BRINGING FARM WORKERS AND JOBS TOGETHER. Article in Land Policy Review, May: Can anything be done to increase the available supply of skilled workers in farm industries? The answer we (U.S. Employment Service) make to farmers and food processors is the same we have made to employers in war production industries. For some jobs there are schools which, within a short time, can train men in specific skills; for others, employers will have to carry the burden of training men on the job.

Specifically, men have been and can be trained in the use and repair of farm machinery at vocational schools, which are located in farm areas; men cannot be trained quickly to hold key positions in dairies, canneries, and similar establishments where a variety of skills and a background of experience are required. For jobs in the latter category, employers in farm industries will have to do what employers in war industries have done—that is, cut down the number of key positions by breaking down the work in such a way that men of lesser skills can handle the work under supervision and direction.

SET PRICE CEILINGS ON SHEARLINGS. Hide and Leather and Shoes, May 16: OPA has established ceiling prices on shearlings, which are now used almost entirely in manufacturing flying suits and garments for the military forces for cold climate wear. The price ceiling regulation applies to both domestic raw shearlings in their unprocessed form and to tanned shearlings for the armed forces. Raw shearlings are defined in the order as the untanned skins of sheep or lambs slaughtered in the United States and sold with a wool growth of one inch or less.

BRAZILIAN SURPLUS RUBBER FOR U.S. Foreign Commerce Weelly, May 2: Brazil has reserved all surplus rubber for shipment to the United States. By a decree of April 1, 1942, all purchases and sales of rubber of any type or quality, both for domestic industry and export, are placed under the control of the Export-Import Bank of Brazil, until such time as a special controlling organization is established.

AUSTRALIAN TEA RATIONING. National Grocers Bulletin, May:
Australians are on a ration of one ounce of tea per week per person.
Consumers were required to declare their present stocks, and hoarders will not be supplied with tea until their holdings are consumed. Consumers were required to register with their retailer to secure tea.

INDIANA FARM MACHINE REPAIR SCHOOLS. American Fruit Grower, May:
A total of 14,667 farmers and fruit growers attended the 93 county farm
machinery repair schools which were recently concluded by three engineers
from the Extension Service of Purdue University. The schools, planned in
cooperation with the State and county agricultural war boards, are instructing Indiana farmers and fruit growers how to repair and maintain in good
working order their miscellaneous pieces of farm machinery.

CHILEAN CHILD-FEEDING PROGRAM. Consumers' Guide, May 1: Chile's national government, municipal governments, and private organizations cooperate in a variety of child feeding programs. School breakfasts are given to all school children. Private organizations operate milk stations, known as "Cup of Milk" or "Drop of Milk" centers, in low-income districts. School gardens provide fruit and vegetables.

CANADIAN VEGETABLE PRODUCTION EXPANDS. Foreign Commerce Weekly, May 2: During the past decade a great expansion has taken place in the commercial production of vegetables in the Dominion; upward of 75,000 acres were added to farming operations in the 1931-41 period. Back in 1931 Canada grew slightly more than 100,000 acres of commercial vegetables, of which sweet corn, tomatoes, green peas, cabbage, and onions comprised the major part. Cucumbers, green beans, and carrots accounted for much of the remainder. The total acreage for 1941 probably increased to about 175,000 acres.

A large proportion of the Canadian commercial production of vegetables is used for canning. Yet this is not a recent development. During 1931 Canada produced 6,000,000 cases of canned vegetables exclusive of soups, tomato juice, catsup, tomato pulp, tomato paste and puree, sauerkraut and pickles. In the following year production dropped to 4,200,000 cases and then increased steadily to 9,500,000 in 1937, dropping again to 7,600,000 cases in 1939. The 1940 figures are not available on the same basis, but, judging by the 285,000,000 pounds net weight, the output was about 9,500,000 cases (basis 24/2's).

ARGENTINE EGG-DRYING INDUSTRY. Agriculture in the Americas, May: Argentina has created an egg-drying industry to utilize the surplus created when Great Britain cut off her shell egg imports because of shipping conditions. The first plant, opened late in 1941, has an egg-drying capacity of about 1 million eggs or 11 tons of powder per day. A recent decree of the Government establishes rigorous inspection in order to provide eggs of the quality needed for drying.

QUOTAS FOR IMPORTED SPICES. Victory, May 12: The WPB has placed restrictions on the distribution of black and white pepper, pimento (all-spice), cassia (cinnamon), cloves, ginger, nutmeg, and mace. Such spices are the principal imported seasoning commodities used by United States industry and consumers. The order places a quota on the amount of each spice a packer may deliver monthly, and on the amount an industrial or wholesale receiver may accept.

VALUE OF RESEARCH IN WARTIME. Article in Land Policy Review, May: It is through scientific research in agriculture that we can now produce food in abundance for ourselves and the Allies. Our knowledge of nutrition is proving of great service in developing proper diets for our armed forces and the civilian population. By combating pests of all kinds, by selecting and breeding of new varieties of corn, wheat, and other plants, by improving pastures, and by the use of proper fertilizers our ability to increase yields has been greatly augmented.

Because of the available knowledge of improved methods of hygiene, sanitation, and feeding of livestock, milk producers can greatly boost their output. The agricultural scientists are eager and ready to come to the aid of the farmers in this time of trial with the weapons which they had forged in time of peace. Science will enable us to win the war. Not the science that is locked up in the heads of a few specialists, but science widely distributed among the large masses of people and applied to the affairs of everyday life.

MILITARY USES FOR COTTON. Farm Journal, May: Our fighters use approximately 350 different cotton products. Military experts estimate that 250 pounds of cotton are required for each man. This includes the cotton that goes into the making of weapons and equipment, as well as that for clothing and bedding. There is one cotton item alone of 16,000,000 sheets.

The average American doughboy dries his face with a cotton towel; wears cotton underwear in summer, and underwear that's about 50% cotton in winter. In summer his complete uniform is cotton; on fatigue duty he wears work clothes made entirely of cotton; he has a raincoat, the base of which is cotton; the linings of his woolen trousers and woolen overcoat are made of cotton; his handkerchiefs, ties and seeks are cotton.

The Navy and Army procurement agencies this winter invited bids on 200,000,000 yards of duck for delivery June 30. This includes materials for tents, leggings, hammocks, gas bags, stretchers and similar items. The mills that are making this order of duck usually make awnings and canvas. To produce in four months 200,000,000 yards, even the carpet mills are being utilized. The highest production of duck in the past was in 1937 (237,000,000 yards).

automatic locker plant in Salem, Ohio. To operate the locker system, the patron stands in front of the bank which contains his locker. By pressing the button on the control panel which corresponds to his locker number, the section with his locker automatically moves into position in front of the door. Automatic reversing mechanism brings it to the door via the shortest route in an average time of 37 seconds. A red signal light shows on the panel while the lockers are in motion and when it goes off his locker is in place. A patron never enters the cold room to gain access to the locker. He stands in normal room temperature protected from drafts by by an air-lock of rubber flap gaskets. When the door is closed the gaskets fold away from the locker section automatically.

FARM-HOME HOUR RADIO TALKS. Among radio talks scheduled over the National Farm and Home Hour, week of May 25-30, are the following: Wednesday, May 27 — A Year of the National Nutrition Program, Paul V. McNutt, Director, Office of Defense Health and Welfare Services; Thursday, May 28 — Special Program on "Agriculture's Part in the Nation's War Program," including short talk by Secretary of Agriculture Wickard on "The Size of the Job Facing Farmers."

PERUVIAN NUTRITION PROGRAM. Consumers' Guide, May 1: Popular restaurants in Peru serve free breakfasts to 10,000 school children. Vacation colonies, supported by the government provide good food and care for a limited number of undernourished children. A Peruvian government agency, the Direction de Asistencia y Prevision Social of the Ministry of Health, Labor, and Social Welfare, administers the Popular Restaurants and supervises school lunches and breakfasts. Laws dealing with food supplies and adulteration are administered by the National Alimentation Division of the Ministry of Promotion and Public Works. Another government agency, the Ministry of Public Health, maintains a nutrition clinic for children of low-income families.

GUARDING FOOD FROM GAS AND GLASS. Article in Food Industries, May, describes precautions taken in England to protect food. Food supplies are faced with two dangers during air raids. One is contamination from poison "gas," requiring subsequent decontamination, as has been proved possible with meat in special decontamination depots in London. The other is contamination from minute pieces of broken glass scattered by the blast from falling high explosives and land mines. Contamination with glass is often more dangerous than may be thought, and in the big raids in England it was shown that glass fragments were dispersed with such force from the blast of an explosive that they could penetrate the average tin container of canned foods.

Air raids also present a problem as to what extent damaged foodstuffs can be salvaged from warehouses and stores burned in air raids, and to what extent they can be utilized. For instance, it was found that a store of figs, damaged too much by a fire raid and by the water used by the fire fighters, and thus unsuitable for human consumption, was an excellent source of bait for rat traps. Such bait is needed in the Ministry of Food's pest-control operations to protect reserves of foodstuffs stored in vacant cellars and other rooms in various parts of the country.

NATIONAL VICTORY GARDEN SHOWS. New York report in Florists Exchange, May 16: Twenty thousand flower, vegetable and fruit shows will be held throughout the United States during the month of September in an effort to raise \$2,000,000 for the joint benefit of the Army Emergency and Navy Relief Funds. Thirty-seven national societies, amateur, professional and commercial, are being invited to appoint state representatives in each of the 48 states, who in turn will serve as state committees to stimulate and aid the effort. The National Committee for these shows is recommending to all local exhibits that prizes as such be eliminated and that in their place, a seal signifying the award, be given. Admission price to the various shows is set at a minimum of 25 cents and all shows will be expected to turn in at least 85 per cent of their gate receipts to the joint fund.

BRISTLES FOR BRUSHES. Farm Journal, May: Soak up the old paint brush that you carelessly let harden, because a good paint brush will be difficult to come by "for the duration." American pigs have bristles that are too short and of too light a weight to make a good brush. Best bristles come from China and Russia. Scrub brushes, the ordinary variety with wooden back and white fibers, will be plentiful because the bristles are made of istle grown in Mexico.

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Washington, D.C., May 22, 1942

COTTON FOR BALE COVERINGS. Business Week, May 16: Now is the time, according to the cotton industry, to start wrapping cotton crops in cotton instead of burlap, to start trading in cotton bales on a net instead of a gross weight basis, and to establish a grading system which will preclude excessive sampling that often rips the bale coverings to pieces and sometimes loses enough cotton out of the bales to pay the rent on brokers! sampling rooms.

Normally a good share of the cotton crop is baled in jute bagging woven from used burlap and new jute butts, in which the used material sometimes accounts for seven-eighths of the product. If manufacturers have on hand a sufficient supply of new jute, the jute baggers may be able to furnish their usual share of "new" bagging this year, since high consumption of cotton is bringing out an abnormal quantity of used bagging. However, as much as 20% of the crop is customarily covered with new jute bagging brought in directly from India, and another 20% covered with sugar cloth bagging made from used burlap bags here. With imports from India highly doubtful, shipments of burlap and of jute to be converted into burlap from Calcutta may be considered out. And with burlap in this country just about jewel-rare there is every likelihood that there will be no such thing as a used burlap bag; they will be either burlap bags in use, or simply valuable rags.

Lane Mills of New Orleans, former big producer of cotton bagging patterns, has undertaken to weave 2,000,000 bale covers and a few other mills have contracted for further quantities, but most textile mills are so laden with military and commercial cloth business that there is simply no loom room. Nevertheless, the job appears to be up to cotton. The Cotton Textile Institute predicts a limited amount of jute bagging for 1942-43, still less and possibly none at all for 1943-44. About two-thirds of the country's mills have already promised the government that they will allow seven pounds extra weight in buying bales covered with cotton rather than jute.

No good system has been announced yet for eliminating free-lance sampling of bales and at the same time satisfying cotton buyers who feel that cotton grades lie exclusively in their own eyes and finger tips. War stresses, however, plus the fact that patches to cover sample tears are going to be increasingly scarce, may bring the industry, including buyers, around to some

sort of certificated grades.

COUNTRY GENERAL STORES. Land Policy Review, May: Although diminished in number, the country general store carries on in this age of fast travel and specialization. Approximately 40,000 remain, compared to 104,000, 10 years ago.

BE A VICTORY PLANNER. A folder by this title, prepared by BHE and Consumers! Counsel Division, has been issued by the U.S.D.A. Among the suggestions are the following:

Skillful hands make better living. Factories that work for war cannot work to make many goods we bought in peacetime. Some things we can make ourselves. Some we can make with neighbors. Use the talents you and your family have for cooking, preserving foods, making clothes, toys, and things to brighten your home. Learn how to use left-over materials. If there's repairing to do, do the job yourself. Lend your neighbors help. Learn new skills. The family that knows how to use its hands can live better for the same money. Share what you know. Learn from your neighbors.

Wasting won't win. Everything we now have must be made to give maximum service. Check your stove and furnace to see that no power or fuel is wasted. Don't waste light. Use your sewing machine, washing machine, and other equipment carefully so they will not wear out. Keep them clean and oiled. Make repairs as soon as they are needed. Mend and make over clothes. Take good care of your woolens. Organize a neighborhood automobile—sharing plan to save tires and gasoline. Share other things, too.

BRAZILIAN TREE YIELDS CORK SUBSTITUTE. Agriculture in the Americas, May: Brazil has its own cork substitute, the bark of a hardwood tree that flourishes in its forests. The tree is one of the most abundant in the forests of south central Brazil, where it is known as Pau Santo or Pau Santo do Cerrado. Present production of the bark is about 8,000 tons a year, and two small plants at Sao Paulo are producing insulation from the material. It is reported that capital and improved transportation would be required for expansion of production.

LIQUID BALLAST FOR TRACTOR TIRES. Implement & Tractor, May 9: The advantages of liquid ballast for tractor tires, in providing necessary additional unsurung weight, are well known to most farmers. The advantages of adding calcium chloride to the water, thus increasing the weight and providing anti-freeze qualities to the solution, may not be so readily appreciated. The amount of calcium chloride required to prevent freezing down to 20 degrees below zero will add about 25 percent to the weight of the liquid in the tire. This chemical is quite plentiful, being made from soda ash which exists in abundance, The possibility of shortages seems quite remote at this time. The solution can be mixed readily in tanks or other receptacles and only a small amount of stirring is necessary. For the larger sizes of tires the total solution will aggregate a little less than 70 gals. Once the chemical is thoroughly dissolved in the water it remains in permanent solution with no deterioration from either low or high temperatures.

VITAMINS ON LABELS. Business Week, May 16: Food and drug products that boast special dietary properties must now tell the public what they are and how they work. This means new labels for every product which is advertised as having any special vitamin, mineral, or other dietary property beyond what the average person would find in a normal diet of ordinary food. Few people outside the food and drug industries realize how much ground this covers, but the following list is illustrative of the types of products that wear new labels: All the vitamin and mineral capsules, concentrates,

tablets, and liquids which millions of Americans take daily to supplement their diets; all fortified or enriched foods, including enriched bread, flour, oleomargarine, breakfast cereals, and even candy; the so-called "health foods," and all infant foods and products specially prepared for diabetics, pregnant or lactating women, and people suffering from allergies, overweight, or underweight.

HITS STATE LAWS ON SIZES OF FLOUR PACKAGES. Washington report in Northwestern Miller, May 6: The multiplicity of state laws governing the size of flour packages was hit in an address by Donald Nelson, WPB chief, in opening a conference in the Department of Commerce to consider elimination of trade barriers which impede the war program. "We want to conserve the materials used in making flour sacks." said Mr. Nelson. "We cannot simplify sack sizes effectively because of the conflicting state regulations governing these sizes."

Mr. Nelson urged state and city authorities to do everything possible to remove restrictive measures on commerce, at least for the duration of the war. "Tin plate is of very great strategic importance — but just recently one state passed a law setting standard sizes for baking pans, the effect of which was to compel commercial bakers to buy a lot of new pans."

MINN. BUSINESS MEN AID FARM WORK. Farm Journal, May: Business men in Goodhue, Minnesota, have registered for farm work, if and when needed. "We'll close up the town if necessary." Since then more than 300 towns in Minnesota have followed Goodhue's lead. Some of these men can be really useful. Certainly a garage mechanic can run a tractor, and the local drayman could drive anybody's team.

TURKISH FOOD SUPPLIES. Foreign Commerce Weekly, May 2: Estimates for Turkey for 1941 indicate smaller yields than in 1940 for most crops, including such leading products as cereals, tobacco, fruits and nuts, and cotton. Although Turkey normally raises adequate foodstuffs for domestic needs, imports of wheat and flour were necessary to supplement local production during the year. This deficiency was partly attributed to smaller crops, increased needs of the Army and to a decrease in coastwise traffic, which caused temporary shortages of certain foodstuffs in a number of urban centers. Official supervision over the food supply was extended by making all cereals subject to declaration and providing for purchase by the Gevernment at fixed prices. Toward the end of the year bread and flour were rationed, and limitations were placed on individual purchases of various products.

LATIN AMERICAN FOOD IMPORTS. Food Industries, May: More imports of Latin American foods, even those competitive with American agriculture, should be expected during the next year or two. The only restriction on an all-out Hemisphere trading plan is the fact that there are not enough ships to bring purchased foods to the United States. Otherwise, the Board of Economic Warfare would finance much of South American economy by buying great quantities of agricultural materials. In at least one or two cases purchases are to be made even though it is evident that the goods bought may have to remain indefinitely in storage in the country of origin.

TRUCK RATIONING FOR FARMERS. Supplement to War Letter for Agriculture, May 18: The supply of new trucks available for civilian uses for the duration of the war emphasizes the need for a rationing system, and the urgent necessity of conservation both in the use of new trucks and those already owned by farmers and others. About 150,000 new trucks will be available for all civilian uses during the war. In 1941 alone, 650,000 trucks of all kinds were purchased in the United States. Thus, new trucks will be available to but a small portion of those who apply for them.

Under the rationing regulations, farmers may establish eligibility for new trucks under two classifications: First, Class II, for transportation of food and materials connected directly with the war effort. Hauling food and materials for Army and Navy use would be considered as being directly connected with the war effort. A farmer engaged in such hauling could qualify in Class II provided it constituted more than 50 percent of his truck operations. Second; Class III, for transportation of food and materials indirectly connected with the war. This will cover most farm uses of trucks, such as hauling farm produce to market.

STATE TRADE BARRIERS. Editorial in Pathfinder, May 23: The war is promising to rid the United States of the vicious trade barriers which have been erected at state lines, especially during the last 10 or 12 years. They amount to tariff walls; they were designed to fence off goods and services from other states. Laws were passed to preserve home markets and jobs for home people. Some were hypocritical, pretending to be sanitation or health precautions, and some were openly retaliatory. All were promoted by selfish interests. An example is seen in the innumerable highway, loading, size and weight regulations which prevent trucks form passing easily from state to state.

MILITARY USES OF LEATHER. Hide and Leather and Shoes, May 16: Per capita consumption of leather for military use is 10 times as great as per capita consumption in civilian life. Moreover, while a modern and mechanized army can dispense with much of the equipment needed for cavalry and horse drawn artillery or supply trains, it still requires a tremendous variety of products in which leather plays the only or an important part. Huge quantities of cattlehides, calfskins, shearlings and horsehides, as well as goatskins, are needed for shoes, gloves, aviators suits and other types of clothing, equipment cases, scabbards, holsters, gun slings. The armed forces must have leather for harness, straps, belting, for the recoil mechanism of big guns, for the linings of combat helmets, and for a hundred other miscellaneous uses. The bulk of the armed forces needs are in cattle-hide leathers.

MINERAL WOOL INSULATION. Ice and Refrigeration, May: "Recent surveys of current stocks and production of industrial mineral wool insulation reveal that no shortages or delayed deliveries are likely to develop on this material for either high temperature or low temperature applications," says the Industrial Mineral Wool Institute. "Because mineral wool insulation is manufactured from widely available domestic raw materials — rock, slag or glass — an ample supply is assured." In these days of threatened transportation bottlenecks on oil and solid fuel, efficient insulation is doubly important to conserve fuel, control temperature and increase power output.

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., May 25, 1942

ENRICHMENT OF FLOUR. Chicago report in Northwestern Miller, May 6: Flour enrichment was the major subject of interest at the recent annual meeting of the Millers National Federation, which recommended enrichment of all family flours. A large proportion of the top grades of family flours are now enriched, and account for a little less than 50% of that class of product, but cheaper flours generally are not enriched. In commenting on this situation, Dr. R.R. Williams, who first synthesized vitamin B<sub>1</sub>, pointed out that it was the low income groups, particularly in the southern states, who were most in need of the nutritional benefits of enrichment, but that the policy of nonenrichment of lower grades prevented them from getting those nutritional factors. Recognizing the cost difficulties in enriching low-grade flours, Dr. Williams declared that this public health problem presented a challenge to the milling industry. Some method must be found to overcome the obstacles to enrichment of cheap flour.

BRITISH LIKE U.S. MEATS. National Provisioner, May 16: The opening of the second quarter of 1942 finds U.S. canned foods enjoying wide popularity among British consumers, with meat products holding first place, a British correspondent writes. These products at present are pegged at 20 points on the points rationing scheme which governs distribution of certain foods. The great demand for these products, of course, notes the correspondent, "his perhaps primarily due to the limitation of the fresh meat ration to about 25¢ worth per person per week. Nevertheless, a distinct taste has grown up for the piquancy of the canned meat and this will probably grow during the summer, when it can be served cold with salads, in sandwiches, etc....War has established such an attachment for American canned foods in millions of British homes which previously had never heard of them that when peace comes, and with it undoubtedly a letting down of trade barriers, the opportunities for U.S. packers will be almost unlimited."

U.S. - PERUVIAN TRADE AGREEMENT. Business Week, May 16: The new trade deal with Lima (Peru) is typical of the long-term plans for economic development which Washington is sponsoring. In return for lowering of import duties on our radios, office equipment, and canned goods, and freezing the present rates on a long list of items including automobiles, the United States has agreed to lower import taxes on sugar, some spices, and long-staple cotton.

ARGENTINE GRAIN SITUATION. Foreign Commerce Weekly, May 2: Spain will send an economic mission to Argentina to negotiate a credit of 160,000,000 pesos for grain purchases. This amount probably includes some 75,000,000 pesos already owned by Spain to Argentina for previous grain commitments....

DEHYDRATED FOODS IN WARTIME. Land Policy Review, May: During the first World War, little was done with dehydration. Today, with battle fronts around the world and shipping space at a premium, the importance of dehydrated foods has increased greatly — one ship can carry the amount of food values that would require nine ships were the commodities in their natural form. Tin and rubber shortages further accentuate its wartime value.

Dehydrated food, too, plays a great part in building up a bank of protein foods and vitamins for civilian and military establishments, our own people, and our Allies. To have this food bank, we must have a product that can be stored without deterioration, will be adapted to shipping, and will preserve as much as possible the nutritional qualities of fresh food. We have many processed foods that meet this requirement. Many more are being perfected by the Department of Agriculture and processors.

Dehydration of cheese is being perfected. It will come in a flourlike powdered form. With the addition of water, it can be made into a
cake similar to processed cheese. A number of packers are trying dehydration of meat. The process is one by which 100 bounds of boneless beef
can be reduced to 30 or 40 pounds containing not more than 5 percent of
moisture. When twice its weight in water is added, it makes a good meat
pie, a hamburger, or a croquette....

Dehydrated facilities to provide the war requirements have been stepped up manifold during the past 12 months. A year ago our egg drying capacity was 40,000,000 to 50,000,000 pounds. Today it is 250,000,000 pounds. Four months ago the capacity for producing dry milk was 400,000,000 pounds. Today it is 487,000,000 pounds, with a much higher goal for 1942. The demand for dehydrated products continues to be beyond plant capacity, but steps are being taken to expand this capacity within the limits of war requirements for metals.

BRITISH AGRICULTURAL ATTACHE APPOINTED IN WASHINGTON. Business Week, May 16: Don't overlook the appointment of an Agricultural Attache at the British Embassy in Washington. Creation of the post (brand-new to the British diplomatic service) indicates that our ally is getting set to cooperate importantly in the programs for close postwar collaboration between the world's great exporters and importers of farm products. It's the postwar angle that makes the appointment of Prof. J.A. Scott-Watson especially significant. One of Britain's outstanding authorities on rural economics, he has studied at Iowa State College, traveled extensively in rural America, and was a friend of "Old Henry" Wallace, father of the Vice-President.

JUTE CULTIVATION IN BRAZIL. Agriculture in the Americas, May: Efforts to cultivate Indian jute in the Amazon Valley of Brazil are succeeding, according to the U.S. Department of Commerce. There is no other fiber known equal to jute for the bagging, sacking, and baling material needed in the cotton industry of the United States and the coffee industry of Brazil. Local authorities say that the vast plain extending on both sides of the Amazon River in the State of Amazonas, irrigated by numerous streams and periodically flooded by heavy rains, should lend itself to the cultivation of the fiber.

FOOD TECHNOLOGY OUTLINED. Food Industries, May, reviews the book, Outlines of Food Technology, by Harry W. von Loesecke, BACE. The fifteen chapters of the book cover: Tin cans and glass containers; fruits and their products; canning of vegetables; dairy products; meat, meat products and poultry; fish and shellfish; grains and their products; edible fats and oils; sugars and starches; nuts; spices, relishes, essential oils and extracts; beverages; confectionery, jams, jellies, preserves and certified dyes; storage and marketing of fruits and vegetables; and preservation of foods by freezing.

The value of a book of this type lies not in the information it gives a specialist on his own field but in the information it gives the specialist, and others, on food processing in general. In that respect it is of value also to food company executives, in both production and sales departments. Newcomers to the food industry will, of course, find this overall picture of food processing most helpful.

CANADIAN EXPORT RESTRICTIONS. Foreign Commerce 1, 300 additional commodities, including certain vegetable, an metal, mineral, and chemical products, have been placed on the prohibited from exportation from Canada, except under permit from the Permit Branch of the Department of Trade and Commerce.... Some commoditative been placed under export control to cooperate with the United State by preventing the re-exportation from Canada of United States goods, which are under strict United States export control, to undesirable destinations. The majority of the products, however, have been placed under control as being products whose export from Canada should be strictly controlled in order to conserve supplies.

WPB URGES SIMPLIFIED DAIRY PACKAGES. American Milk Review, May:
WPB has asked those engaged in the butter manufacturing and packaging
division of the dairy industry voluntarily to make certain changes in
their operations designed to conserve paper, tires and other resources
needed for the war effort. Of least importance is the recommendation,
that the packaging of butter in quarter and half-pound cartons be discontinued. The total percentage of butter so marketed is very small. It
was requested that only one wrapping be used for all butter sold at retail.
Compliance with this request doubtless means that a single parchment
wrapper be the only one used in quarters, halves or solids to be inserted
in MPB approved one pound cartons. MPB desires the gradual curtailment
of primary shipments of butter in tubs and a swing toward utilization of
68-pound western-style fibre cubes. Packers are asked to restrict resale
packages to 32-pound fibre or corrugated boxes.

TO COORDINATE CREAMERY ROUTES. Farm Journal, May: Eight truck routes go over the same road hauling cream in some parts of Butler county. Iowa, and the county's farm planning board is planning to get creamery operators together to do something about it. Farmers are now served by 78 truck routes from 23 creameries (10 inside and 13 outside the county). In one township, mileage of the cream routes is three times as great as the mileage of all roads.

SUGAR SHIPMENTS FROM HAWAII. Business Week, May 16: Take a grain of salt with the sugar coming in from Hawaii. It's heartening to hear that the island shipped 108,066 tons of raw sugar to the United States in April, topping the 90,536 for the entire preceding three months. But Hawaii's normal shipments to the mainland run from 900,000 to 1,000,000 tons a year, can hardly be expected to top these figures even if the April rate is maintained. And even 1,000,000 tons wouldn't make up the deficit of nearly a million tons ordinarily received from the Philippines, or provide anything extra for our allies who can no longer get their customary supplies from the Far East.

May: The war is seriously affecting one of Ecuador's most important agricultural industries, the production of tagua nuts, which yield the product called vegetable ivory, extensively used in the manufacture of buttons and similar products. Although Argentina is buying larger quantities of tagua nuts and shipments are still being made to England, the closing of the formerly portant German. Japanese, and Italian markets is felt. As a pected that a good many tagua nut producers will turn to ot including rubber, rice, and sugar.

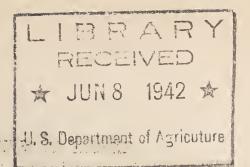
The need for additional farm storage has been exphasized further an Office of Defense Transportation order which bans movement of grain over the Great Lakes except by special permit. Purpose of this action is to free all boats possible for shipment of iron ore needed urgently in the manufacture of war equipment. Roughly, about 160 million bushels of grain ordinarily moves to market via the Great Lakes route each season. Probably about 40 to 50 million bushels may still be moved on the Lake route in boats that cannot carry ore. The ODT order will affect about 340 ships with a gross carrying capacity of nearly 3 million tons. An unprecedented shipment of ore is expected for the season.

SCIENTIFIC FISEARCH IN SWEDEN. Science, May 15: Extensive research is going on in Sweden, to find substitutes for products which can no longer be imported owing to the war. One of the most important centers for this research is the Physical-Chemical Institute, Uppsala. The work with different kinds of synthetic rosins and cellulose-derivatives is now progressing on a large scale. Among other objects of research may be mentioned bread. Experiments are being made to find a means of replacing imported hard wheat, which was formerly used to improve the baking qualities of bread made from Swedish native soft wheat. Investigations are also being carried out on synthetic rubber. The work has proceeded so far that the product has been evolved in the laboratories of the institute, although it is too early yet to say whether domestic production can be started.

FRUIT, VEGETABLE BASKETS. Land Policy Review, May: The factory value of baskets made for the fruit and vegetable industry is more than \$14,000,000 annually.

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#### The Daily Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., May 25, 1942

FS DEVELOPS PAPERMAKING METHOD. Business Week, May 16: From the war is emerging a newly popularized method of low-cost papermaking — a process that makes nearly every type of tree grist for the mill....

There are five accepted basic methods of pulping wood. According to the Forest Products Laboratory in Madison, Wis., a dozen or more mills are now interested in a sixth process of papermaking developed by its researchers. Ever since 1927, Laboratory has been experimenting with a "semichemical" process, to steer a middle course between the cooking process, which dissolves away half the wood, and the grinding process, which succeeds in retaining most of the wood constituents but greatly reduces the length of the fibers.

In its barest essentials, the semichemical method softens the chips by a light preliminary cooking. This is followed by a treatment in attrition mills, where rotating disks disintegrate the chips to a fibrous pulp without injury to the individual fibers. Pulp treated in this way has a high percentage of hemicellulose, which acts as a glue or binder for the short fibers, and yields a sheet with all the strength desired....A very acceptable alpha cellulose, which looks and feels much like cotton, may be produced at an acceptable price to compete with the same product made from cotton linters.

Another major advantage of the Forest Products Laboratory's semichemical process is that it yields a greater tonnage of paper per tree logged. Reason: Cooking processes lose half the weight of the wood, while the semichemical treatment transforms 75% of the weight of the trees into the finished sheet. With world-wide economic conditions tending toward a long-term pulp shortage the high-yield possibilities alone offer the incentive to shift paper mills to using this process. Greatest immediate possibilities of the semichemical method are in the container board field.....Biggest advantage of the semichemical process will come from saving on haulage—which today means tires—and in preserving the value of existing paper mills and paper-making communities by giving them many more years of raw materials.

SALT AS SUPPLEMENTARY FERTILIZER. Farm Journal, June: Michigan crop experts who have been working on this since 1924, say ordinary salt increased the yield of 12 crops on muck soil when a phosphate-potash fertilizer mixture was applied along with the salt. Crops greatly benefited were table beets, mangels, sugar beets, Swiss chard, celery and turnips; crops helped not quite so much were cabbage, kale, celeriac, kohlrabi, radishes and rape. Salt applied without potash was of no help. On the six crops first named (the ones helped most), apply from 500 to 1,000 pounds per acre; on the six less-responsive crops use 100 to 400 pounds per acre.

EXPERT TO STUDY AMAZON VEGETABLE OILS. Agriculture in the Americas, May: In an effort to develop an interest in expanding production in the Amazon Valley of vegetable oils needed in United States industries, Vernon F. Wright has gone to Belem, Brazil, as a representative of the agricultural division of the Office of the Coordinator of Inter-American Affairs. Mr. Wright, formerly Brazilian buyer for a United States food firm, will deal with problems of acreage expansion, financing, transportation, and labor involved in increased production of coconut, palm, and other vegetable oils which this country formerly imported from areas now cut off by the war or of substitutes for them.

FROZEN FOODS PRODUCTION. Food Industries, May: Production of frozen foods continues its upward climb. Statistics collected by Food Industries indicate that the 1940 production in the United States amounted to 555,881,000 lb.; that for 1941, 697,481,000 lb.; and the anticipated 1942 production 823,931,000 lb. These figures include production of cold pack fruits and quick frozen fruits, vegetables, meat, fish and poultry. Most of the output is made up of quick frozen products. For 1940, the production of quick frozen foods is placed at 390,185,000 lb.; for 1941, 492,485,000 lb.; and production this year is expected to reach 588,085,000 lb. Part of the increase in quick frozen foods production in recent years is attributable to the fact that some freezing not formerly considered "quick" has now been placed in that category.

Expressed in percentage increases, frozen food production went up 25.5 percent in 1941 and is expected to increase by more than 18 percent this year. Quick frozen food production was up more than 26 percent in 1941, and the anticipated rise this year is over 19 percent. Of quick frozen food production about 47 percent is vegetables, 21 percent fruits, 21 percent fish, 7 percent poultry and 4 percent meat.

These figures on frozen food production are based principally upon reports from commercial freezers. The figures do not include meat frozen for storage, frozen eggs, uneviscerated frozen poultry, nor fish frozen in bulk. Nor do they include the output of some 4,500 locker plants scattered throughout the country.

BY-PRODUCTS OF OSAGE ORANGE. Farm Journal, June: Osage orange is helping fight the Axis. Farmers around Clarksville, Texas, are selling the trees to a lumberman who ships the barked and sapped wood to a dyewood factory in the East. There the heartwood is pulverized to extract dye for soldiers uniforms, and the pulp residue is used in making explosives and airplane plastics. Farmers are getting per 2,400-pound ton: \$1.50 for standing trees, \$4.50 in the rough logs, \$6.50 for barked and peeled heartwood.

FEEDING EUROPE AFTER THE WAR. London correspondence in Journal of American Medical Association, May 16: A recent article in Nature (British publication) discusses the question, What foods should be held ready to rush to Europe after the war? All the occupied countries, as well as the belliger ents, are rationed. In some the bread ration is high: 80 ounces a week in Germany and 85 ounces in Denmark. In others the ration is low: 50 ounces in Italy, 55 in Belgium, 30 in Greece....In Belgium and Italy the fat ration

is very low:  $3\frac{1}{2}$  ounces a week; in France it is 4 ounces. The following estimates have been made of the number of calories per head available daily: Germany 2,900, Norway 2,500, Italy: 2,400, Bohemia 2,300, uncoccupied France 2,160, occupied France 2,100, the Netherlands 2,250, Belgium and Luxembourg 1,870. Figures cannot be given for Greece and Poland, but conditions are known to be very bad.....

At the end of the war Europe will probably suffer from lack of food and deficiency of first class protein, vitamins A, C and D and calcium. The article recommends wheat as the first food to be rushed to Europe after the war and dried milk, whole or skimmed, as the second.... There should be ready a store of extra fats, such as whale oil, and of protein in the form of dried meat and fish. Soya bean flour could also be stored for adding to wheat flour to augment the protein value of the bread. Synthetic vitamin C or citrus fruit concentrate also should be supplied. Second, we must plan for the continued feeding of Europe, which means planning not only of European but of world agriculture.

REGIONAL LABORATORY DEVELOPS APPLE SYRUP. Better Fruit, May: In the research on finding sugar substitutes, apples and apple by-products are becoming increasingly important. Newest product of this type to be developed experimentally is an apple syrup, produced by the Eastern Regional Research Laboratory in Philadelphia. Dr. Mottern, of the laboratory, sent a bottle of the syrup to the Washington State Apple Commission in Wenatchee. Those who have sampled the syrup say that it has a zestful, refreshing flavor and a clear, golden color. In a letter to the Commission, Dr. Mottern wrote: "Particular interest has been given this product as a sweetener in view of the sugar shortage. Rhe big difficulty appears to be the lack of availability of vacuum equipment for concentrating. There might be some possibility of using milk evaporators but they may be in use on the western slope evaporating milk during the apple season." In the event this syrup proves acceptable for general consumption, effort will be made to secure concentrating equipment.

NUTRITION POLL. American Miller, May: Few city families make a habit of eating all the protective foods necessary for health and strength, according to a recent nutrition poll made public by Federal Security Administrator Paul V. McNutt. The survey was conducted in South Bend, Ind., where a community nutrition program is now under way. The eight basic food groups about which housewives there were questioned are those listed as daily "musts" in the national nutrition food rules, recommended by the nation's leading nutritionists; enriched white flour or bread or whole grain products; milk and milk products; oranges, grapefruit, tomatoes, raw salad greens; green or yellow vegetables; other vegetables and fruits; meat, poultry and fish; eggs, butter and other spreads.

Only a small percentage of the families interviewed use all eight essential groups daily; but the survey shows that a third of the housewives use at least seven of them in the average day's meals; and another third use six. Meat, vegetables (other than green or yellow), and butter are the three groups reported most frequently in the average day's meals. Children seem to fare much better, nutritionally speaking, than adults. This is especially noticeable in the findings of milk and milk products.

Approximately 95% of housewives with children believe that milk products should be served daily, whereas no more than 80% of adults without children believe they need milk or milk products every day. Nine out of 10 families with children claim to drink milk at least five days a week; but only about 5 out of 10 families without children say it is served that often.

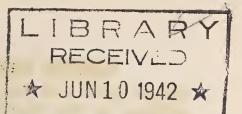
WHAT "DEHYDRATION" OF FOOD MEANS. Food Industries, May: Dehydration has two meanings, to our way of thinking; First, it is a unit operation of food engineering involving the removal of water from a food by evaporation from a solid or a liquid at temperatures usually far below the boiling point. Whether you choose to call it evaporation (as applied to apples), dessication, drying, sublimation, or what not, it is still the same unit operation -- dehydration, i.e., water removal, generally without boiling. Second, it is a method of food preservation, for if a food is dried out to a sufficiently low moisture content, it is impossible for molds, yeasts or bacteria to grow on it as long as it remains dry. While it is not difficult to dry out a food irrespective of the cost, it should be remembered that a successful operation involves eight steps in which dehydration is only one of them, yet all must be performed successfully to produce a satisfactory product. These known steps are: (1) Choice of the right variety of raw material; (2) proper growth of the raw material; (3) harvest or slaughter at the proper time; (4) prompt preparation for dehydration (very important); (5) proper preparation (also very important); (6) proper dehydration; (7) proper packaging; (8) proper storage.

STARCH FROM SORGO. Farm Journal, June: Starch from sorgo is a story that started with the Nebraska College of Agriculture. "Caution" is the word they use to offset enthusiasm caused by the report of a new development for producing starch from the Leoti grain sorghum, to replace the tropical cassava root (another war casualty). Nebraska farmers are being urged to dispose of Leoti seed only for planting purposes. If it does turn out that the crop is a widespread source of starch supply, farmers can grow Leoti, put the forage in the silo and sell the grain, or cut for fodder and thresh the heads for grain. And if the starch market does go sour, the farmer can use the grain for feeding livestock or poultry.

BREAD FOR THE ARMED FORCES. American Miller, May: The War Department in April reported that it was mass-producing bread for  $2\frac{1}{2}\phi$  per 1b. Seventeen army quartermaster bakeries now are using enriched flour exclusively for production of thin crusted garrison bread and the thick-crusted field loaves. Plans are ready for bakeries that can produce from 7,500 lbs. of bread in 16 hrs. to plants sufficient to produce 45,000 lbs. of bread in that time. In addition to excellent mechanical equipment, each post bakery has storage facilities for a 2 mos. supply of flour and a 24-hr. supply of bread. The new-type field bakeries have been greatly improved during recent months. The ovens are gasoline-fired but in an emergency can use coal or wood for fuel.

ARGENTINE YATAY PALMS YIELD FIBER. Agriculture in the Americas, May: Yatay palms, which grow wild on the rolling plains of Argentina's "Mesopotamia region, yield a fiber believed to be a possible substitute for Algerian crin vegetal, imported into the United States from Morocco. It is known in Argentina as crin vegetal, although it comes from an altogether different tree than the African product. The fiber is in the leaves of the tree. It is used locally to a limited extent as a mattress filler. In this country, crin vegetal is used for cheap mattresses, cushions and linings of automobiles. Imports from Marocco in 1939 amounted to 5 000 tons, valued at more than \$125,000.

## The Daily Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are approved by the Department of Agriculture.

Washington, D.C., May 27, 1942

HOW CANADA DEHYDRATES FOODS. Article by this title, in Food Industries, May, by member of Kentville, Nova Scotia, Experimental Station, says: There still seems to be considerable controversy as to the advisability of preprocessing vegetables for drying. We in Canada are convinced that preprocessing, namely blanching, is necessary if products of suitable edibility, nutritive value and keeping quality are to be produced. For example, preproliminary investigations have shown that a product such as cabbage, which after drying shows peroxidase activity, will also show poorer quality after two months' storage than it does if peroxidase has been totally inactivated. For this and other reasons, all products under government supervision are either steam or water blanched before drying. At present potatoes and carrots are water blanched while turnips and cabbage are steam blanched.

In Canada we use 5-gal. tins with press-in lids and solder-on caps to package dehydrated vegetables. Investigations have shown that inert atmosphere are, in the case of some products, a prime requisite for satisfactory storage. In a matter of weeks it is possible, in room-temperature storage, to note a definite deterioration in the quality of dehydrated carrots stored in an atmosphere of air as compared with those stored in an atmosphere of commercial nitrogen. For this reason all carrots, turnips and cabbage processed in Canada for government order are to be packed in tins in which the air has been replaced with nitrogen or carbon dioxide. At Kentville we have a new experimental dehydrator incorporating several innovations which it is hoped can be carried over into commercial design, thereby making a simplified installation, while at the same time increasing drying efficiency.

ARMY GETS DEHYDRATED APPLE NUGGETS. Fruit Products Journal, May: A contract has been awarded by the Quartermaster Corps for purchase of one million pounds of dehydrated apple nuggets. This product tastes good when mixed with cereals and eaten in place of fresh or canned fruits. It makes excellent apple sauce and apple pie; in fact, can be used in practically every way as a substitute for canned apples. The Army's apple nuggets are made from a commercial grade known as "extra good". Not all types of apples adapt themselves well to drying. Ideal for the purpose are the tarty varieties like the Rome Beauty, the Baldwin and the Stayman Winesap. Most dried fruits, now bought on a quantity basis, serve Army purposes satisfactorily enough. Big advantage of dehydrated apples over the dried kind is that their flavor is superior. They keep well and do not become rancid. There's also a substantial saving in moisture content. Dehydrated apples contain only 3 to 5 percent moisture or less, whereas the dried fruits contain anywhere from 17 to 26 percent. Army food experts say dehydrated apples will "refreshen" at about ten to one; in other words, that a certain weight (not volume) of dehydrated apples will make about ten times that much apple sauce or filling for apple pie. Another way of expressing it is to say that whereas a No. 10 can of apples weighs 7 pounds, the equivalent, in the form of apple nuggets, will weigh about a pound. As a protection against insects and also to conserve tin, apple nuggets are being packed in airproof, 5-gallon, black metal cans.

UNIFORM DAIRY SCORE CARD. Farm Journal, June: Revision of the score card for judging dairy cattle has just been accomplished by a committee of the Purebred Dairy Cattle Association. Up to now, each dairy breed has had a separate and distinct score card; from now on, the student of dairy type finds the points described on the uniform score card are the same, whether they be found in one dairy breed or another. Prominent breeders, officials of the breed associations and dairy experts at the colleges worked together to develop this uniform score card.

AMERICA NEEDS MORE MILK and more care in its handling, says a new USDA circular: There are two kinds of milk! Milk that is clean and sweet—and milk that isn't!. Dairy farmers have as their 1942 goal the production of 125 billion pounds of milk. But the goal doesn't depend entirely on how much milk is produced. The kind of milk also has a bearing on the success of the wartime food program. Much of the milk is needed for making cheese, evaporated milk, and powdered milk. But only clean and sweet milk will make cheese, evaporated milk, and powdered milk of acceptable grade.

Too many milk producers in 1941 failed to take the necessary precautions in handling their milk. Also, too many buyers failed to grade the milk carefully enough. One result: About 15 percent of the cheese offered for Government purchase was rejected because it was not of the desired quality. It was not satisfactory largely because the quality of the milk from which it was made was not satisfactory. One careless producer may undo the careful work of all his neighbors — unclean milk from one farm may easily spoil all the good milk delivered by a dozen or more patrons to the same creamery, cheese factory, or condensery.

MORE SUGAR FOR CANNING. War Board Memorandum No. 54 says: The Office of Price Administration has amended the sugar rationing regulations to make more liberal the amounts of sugar available for home canning. Under the amendment, home canners may now obtain one pound of sugar for every four quarts of finished canned fruit. An additional one pound per year for each person in the family may be obtained for making jams, jellies, preserves, and fruit butters. The rationing of sugar for home canning of fruits will be made by local rationing boards largely on the basis of the amount of home canning an individual or family unit has normally done, availability of fruits, and other factors.

The person applying for sugar in behalf of a family unit or as an individual must give the local board the following information: (1) Names of the consumers on whose behalf the application is filed and the serial numbers of their war ration books. (2) The number of quarts of fruit canned in the preceding calendar year. (3) The number of quarts of home-canned fruit in possession of the individual or family unit making the application. (4) The number of quarts of fruit to be canned during the period for which the application is being made. (5) Whether sugar is to be used for preserving. (6) The excess supply on hand at the time of registration for war ration books.

If any of the sugar allotted for home canning is not used in accordance with regulations, stamps will be removed from War Ration Books equivalent in weight value to the amount of sugar improperly used. None of the sugar

available for canning fresh fruits can be used for making jams, jellies, preserves, and fruit butters. However, sugar obtained on the basis of the stamps in war ration books may be used for such purposes. The time and places at which applications may be filed for sugar for home canning will be announced later by local boards.

ARMY BONELESS BEEF SAVES 20 SHIPS. Food Industries, May: The Army method of cutting beef leaves the bones and surplus fat — amounting to 30 percent of the weight and having some commercial but no battlefield value — in the hands of the packer. The beef is separated into three parts: No. 1, for roasting and steaks; No. 2, stewing and boiling; No. 3, chopped into hamburger. Each is packed into 50-lb. boxes and frozen solid. This is ideal for distribution and field-kitchen use. A ton can be stored in 35 cu. ft. whereas a ton of carcass beef occupies over 100 cu. ft. We are now buying about 3,000,000 lb. per week. This development will in 1942 save 66 million pounds of shipping weight and 8-1/3 million cubic feet of shipping space. That weight would fill 2,500 refrigerator cars and the space amounts to the cargo capacity of 20 ships.

The reserve ration used during the World War consisted of corned beef, pork and beans, and hard bread — the latter packed in handmade square cans. Development work on this has produced a well-balanced reserve ration now called the Type C ration, consisting of three 12-oz. cans of meat and three similar sized cans, each containing biscuits, soluble coffee, sugar and hard candy. The hard bread is a new and very nutritious biscuit developed in our laboratory and replaces the old-time "hard tack." This ration is carried by the individual for use when normal food supplies cannot be issued.

U.S. SEEDS FOR RUSSIA. Florists Exchange, May 23: Over 5,400 lbs. of seeds - including those of the basic vegetables of the Russian diet: cabbage, beet, onion, carrot, squash, lettuce, cucumber, turnip, radish, tomato, parsnip, collard and swiss chard - have been contributed to Russian War Relief, the largest contribution coming from commercial seed growers, who have promised further bulk donations after the 1942 fall harvest. Many seed houses also sent cash contributions. It is said these contributions would plant five thousand acres.

CIDER-APPLE JELLY. Fruit Products Journal, May: Massachusetts State College has prepared a cider-apple jelly of highly desirable taste, flavor, and color by adding sweet Baldwin cider, concentrated to one-third its original volume, to heat-extracted apple juice from an equivalent weight of apples. The amount of dry sugar added was about 60 percent of the weight of the apple stock used. The remainder of the sugar was naturally present in the added cider. The mixture of concentrated cider, extracted apple juice, and sugar was concentrated by boiling to a soluble solids content of 68 percent by the usual jelly manufacture procedure....Cider-apple jelly is a distinctive product of attractive color and appealing flavor. It is superior in quality to either apple jelly or cider jelly alone and can be easily and economically produced commercially or in the home.

DEHYDRATED YAMS FOR ARMY. Farm Journal, June: Dehydrated yams are on the Army's food shelf. First orders, as well as a \$71,000 loan from

Reconstruction Finance Corp., go to the Gilbert C. Wilson Laboratory at Denton, Texas. The plant will process 50 tons of potatoes a day (15 tons of the dried product).

SUFFICIENT ANTI-FREEZE EXPECTED FOR AUTOS NEXT WINTER. War Letter for Agriculture, May 25: Allocations for anti-freeze requirements have not yet been established but farmers may count on sufficient anti-freeze for their automobiles next winter on the basis of a production order of WPB. The WPB Division of Industry Operations expects that enough anti-freeze will be made available to fill requirements of the reduced number of motor cars operating during the fall and winter months. Quotas are expected to approximate 50 percent of the amount of anti-freeze sold by each producer in 1941. The reduced quotas will reflect the curtailment in use of auto transportation and the thriftiness of automobile owners in saving last winter's alcohol.

SEEK BETTER-KEEPING BUTTER. Dairy Record, May 20: Butter that will keep from growing rancid without refrigeration, even under the adverse conditions which it will encounter when used to supply armed forces in tropical countries, is an aim which U.S. Army officials, and officials of other armies, are striving to attain. If they achieve that goal, the peace-time effects may be far-reaching in their scope. Attainment of the objective may have a decided reaction upon butter making and marketing methods even in sectors where tropical conditions do not exist and where refrigeration facilities are ample.

The Quartermaster Corps research laboratory has been attempting for some time to devise a butter that will meet Army requirements under tropical conditions, where no refrigeration is available. The basis of this experimentation involves the incorporation of a harder fat which will bring the melting point of the finished product to approximately 110 deg. F. Hydrogenated cottonseed oil flakes provide the hard fats needed to raise the melting point of the finished product. They are used only in such quantities as necessary to produce the desired degree of hardness, and the finished product usually contains not less than 68% fat. Australia, too, has tackled the problem but without recourse to the addition of a fat foreign to butter. It seeks to solve the problem through the complete removal of water from butter. This result is attained first by the use of a special centrifuge and then by drying under vacuum. This process is applied when the butter is in the granule stage. A shipment was sent to Britain some time ago but no report of the results has reached Dairy Record as yet.

SALVAGE OF MATERIALS ON WAR CONSTRUCTION JOBS. War Board Memorandum No. 52 says: The War and Navy Departments have indicated their willingness to cooperate with USDA War Boards in making available salvage materials which might be used for civilian purposes such as wood, lumber, or wire fencing. It is necessary for both Army and Navy to act with as much speed as possible in completing construction on plant sites, factories, and other facilities essential to the war effort. Usually, urgency does not permit the officer in charge to advertise for bids on salvage materials. However, as a means of cooperating in the sale of such materials, the military departments have suggested that the County War Board Chairman in an area where war construction is under way should get in touch with the Army or Navy officer in charge and leave address and telephone number and at the same time discuss with him the best plan for bidding on the purchase and removal of salvage materials. By so doing, waste can be held down to a minimum.

THE Daily Digest

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Washington, D.C., May 28, 1942

DROUGHT RELIEVED IN MOST OF EAST. Weekly Weather and Crop Bulletin, May 27: Heavy rains of the week effectively relieved drought in the more eastern States. While rains did considerable damage in some sections, the general agricultural situation markedly improved and vegetation is responding favorable, although warmer weather is needed. In the interior, while rainfall was light in many places, lowlands generally are still too wet for cultivation and coolness is retarding germination and growth of springplanted crops. The country, as a whole, is unusually well supplied with moisture for the season, with only a few limited areas, principally in the Southwest, now needing rain.

There has been no material change in the condition of the winter wheat crop, except that additional rains in the Northeast and much of the Southwest have been favorable. The crop continues to develop satisfactorily. Better growing weather prevailed in much of the spring wheat area. Oats and barley are mostly good, though growth in the interior is rather slow. Rice is making good progress in the central Gulf area.

Corn planting is still retarded in much of the central valleys, although in the northwestern belt favorable progress was reported. In the southern Plains, the bulk of corn has been planted. In Iowa, for the State as a whole more than the normal amount for the season is in, with field work progressing day and night in some sections where farmers have equipped their tractors with headlights for night operation.

In the Cotton Belt conditions were fairly favorable in most of the eastern half, though warmer weather was needed, while the west was too cool and in considerable areas too wet. Rains in many eastern sections of the belt have improved the condition of the soil.

Truck and miscellaneous crops show general improvement in the Southeast under rainfall. In the Middle Atlantic States all growing crops responded favorably to the increased moisture and in the Northeast warm, sunny weather is needed. In most western sections minor crops are in good shape.

Commerce Weekly, May 23: Milking machines are being used as extensively as possible in Germany in an effort to facilitate milk production, according to the European press. Approximately 5,000 milking machines have been installed, in spite of manufacturing difficulties, and the present agricultural program calls for an additional 20,000....A standard type of gasproducer unit for use in farm tractors has been developed in Germany, according to the Reich Board of Agricultural Technique. Manufacturers are now ready to start producing the new unit, which will be made in four sizes, and it is expected that the output by the middle of 1942 will be substantial. The gas-producer tractor will be considerably more expensive than the liquid-fuel type, but the Government will assist purchasers with subsidies.

ARMY FOOD RATIONS. Article in Food Industries, May: A soldier consumes over 5 lb. of food a day. The shipping weight is over 6 lbs. To feed an Army of 3-1/2 million men, 20 million pounds of food must daily be purchased, shipped, tabulated and issued. Every pound must be inspected for quality and condition. The issue involves distribution in correct amounts to 15,000 Army kitchens in 300 camps, scattered through every State in the Union and many overseas stations. This represents an increase over our peacetime operation of 200 percent in the number of camps, of 500 percent in the number of overseas stations and 1,500 percent in personnel.

When a man joins the Army he eats about 25 percent more than he did in civil life. During his first 90 days of service he gains about 7 lbs. But this increased consumption by 3-1/2 million men causes less than one percent increase in American food production except for special items. Army posts and regional depots carry a 30- to 45-day stock. Ports of embarkation carry limited stocks, but each is backed up by one or more inland depots from which supplies can be promptly delivered to the port. These stocks are completely balanced and are based upon menus prepared in the subsistence office by nutritional specialists. We have shipped with certain outgoing forces as much as 180-day supplies of perfectly balanced rations, not one item of which needed refrigeration.

How about sugar production in the U.S.? More sugar is now produced within the borders of the 48 United States than ever before in the country's history. During the past 8 years under the protection of the sugar program farmers have produced 36.5 percent more sugar than they did in the previous 8-year period. There is no government limit whatever placed upon United States sugar production for 1942. Payments to growers have been increased one-third this year for one purpose — to get more sugar. The more sugar a farmer produces the greater his payments. Farmers have already told the Nation they intend to plant almost one-fourth more sugar this year than last, which may prove an all-time high for a single year.

Then why ration sugar? Because we can't get some of our usual offshore supplies. Seventy-one percent of our sugar is brought in from the
territory of Hawaii, Puerto Rico, the Philippine Islands, and from Cuba.
Our Philippine supply (a million tons, or 15 percent of the total) has
been cut off entirely. Ships ordinarily used to carry sugar are now
needed to carry more critical war materials. Our supplies are shared with
other United Nations. It is only fair to share with our Allies. They
have lost many sugar sources, and must have sugar from this hemisphere.

SOUTHERN ASSOCIATION OF SCIENCE AND INDUSTRY. Science, May 22: The Southern Association for the Advance of Science, at the recent annual meeting in Atlanta, agreed to change its name to the Southern Association of Science and Industry, in order that participation of industrialists and business men in the organization might be more properly indicated. It was further agreed that the incoming president should appoint a Long Range Planning Committee and a committee to survey research now being carried on in the South. The original territory was changed to include all of Texas and Maryland and the District of Columbia.

INSTITUTE OF COOPERATION MEETS AUGUST 10. Pure Milk, May: Farm leaders representing the 10,600 farmer cooperatives of the nation will gather at Purdue University, LaFayette, Indiana, during the week of August 10 to study means of extending the contribution of their organizations to the Food for Freedom program. The occasion is the 18th annual session of the American Institute of Cooperation.

GRAIN STORAGE SITUATION. Editorial in Farmers Elevator Guide, May: Traditionally, elevator men are not favorable to farm storage of grain, for several reasons. Until grain has reached the receiving dump in the elevator there is always the chance it may trickle away to some other destination, or be purchased by neighbors for feed or by an itinerant trucker. The quality of grain in farm storage is more subject to depreciation from excess moisture or insects, to depredations of four-footed and two-footed thieves. So it has been a common practice of elevator managers to recommend to farmers that they haul their grain to the elevator as soon as it is threshed. This was all very well so long as there was unlimited capacity in the grain terminals to absorb shipments from country houses as fast as they arrived....

Now the situation has completely changed, due to gradual accumulation of surplus of food and feed grains entirely without precedent....

This season the seaboard storage is full, without much prospect of relief. Shipment of grain by boat from Great Lakes ports has been shut off in the interest of more rapid movement of iron ore. Mid-continent terminals are full to bursting. Construction costs are excessive and materials hard to get. There is just one place to look, and that is new storage on the farm.... What effect farm storage will have on the grain handling business in later years, when the war is over and the grain surplus has been worked down by a resumption of world trade, is a bridge to be crossed when we come to that time. At the moment, farm storage seems the only feasible way out.

COOPERATIVE FOOD LOCKERS IN GEORGIA. Locker Operator, May: Vocational agriculture leaders in Georgia are promoting the use of small, cooperative frozen food locker plants. A corporation in Atlanta has designed a 50-locker, factory-built freezer locker plant which is considered practical for cooperative use by families in small southeastern communities. The first plant of this type was installed at the University of Georgia where it was used for demonstration. This plant has been loaned to the university. Vocational agriculture leaders in Georgia are encouraging their use, and already several plants have been installed in vocational agriculture schools. These cooperative locker plants are being financed by an Atlanta bank. The total cost of the 50-locker, prefabricated plant is around \$3,500. Many vocational agriculture schools in Georgia have canneries in which fresh fruits and vegetables can be processed for quick freezing and locker storage.

FOOD TECHNOLOGY MEDAL ESTABLISHED. Science, May 22: W.V. Cruess, head of the fruit products laboratory of the California College of Agriculture, has been awarded the first Nicholas Appert Medal of the Institute of Food Technologists. It will be presented to him June 16 at the annual convention of the institute in Minneapolis. The medal will be awarded annually for "outstanding contributions to the development of improved food preservation methods."

BRITAIN TRIES "DE-TINNING" OLD CANS. Foreign Commerce Weekly, May 23: Possibilities for recovering a potential 2,000 tons of tin yearly from tin cans — provided the need for tin is sufficiently urgent and assistance is given in furnishing an adequate supply of cans — are discussed in an article appearing in the British press. Uneconomical in normal times, recovery of tin from old tin cans could be attempted only in highly populated areas where there is a steady source of supply. While old tin cans have been detinned in London and to a limited extent in several other parts of the country, the tin cans usually go to blast furnaces. With tin recovery from old cans ranging from 3/4 to 1 percent, costs at present exceed the value of tin recovered.

NATIONAL REGISTRY OF RARE CHEMICALS. Science, May 22: A National Registry of Rare Chemicals has been established by the Armour Research Foundation. Information on chemicals too rare to be listed in the catalogues of regular chemical supply houses will be filed with the registry and indexed according to name, location and amount available. Chemicals to be found in the catalogues of supply houses are not included, but those not available through regular channels will be listed. The file will be regarded as confidential and will not be open to general inspection.

ICELAND COOPERATIVES TO INSTALL FOOD LOCKERS. Locker Operator, May: The Cooperative Societies of Reykjavik and Neighborhood are installing a modern frozen-food locker plant and several branches in nearby suburbs of the capital Iceland city. Jens Figved of the Reykjavik cooperative has been in the United States for the past five months studying the locker industries. Freezing of foods is nothing new to Icelanders. Twenty years ago they began freezing fish, using ice and salt. Ten years ago modern quick freezers were installed in Iceland, and since that time most of their fish exports to England have been delivered frozen. Fishing is the main industry of this country. Lamb is the principal meat eaten in Iceland. The lambs come on the market in September and there is only a period of about 30 days when one can buy fresh lamb. Surplus lamb is frozen in carcasses, and as needed is thawed and cut up. Patrons of locker plants in Iceland will be able to slaughter their own lambs for storage, or buy lamb at wholesale prices during the fresh season and store it in their lockers for later use. Lockers will also be valuable for the storage of fish, because the season for fresh fish is only from December through May.

AGRICULTURAL MARKETING COOPERATIVES. Farmers Elevator Guide, May:
The marketing cooperatives represent "organized farming" at its best.
These organizations aren't in business to shorten working hours and "slow down" production. Instead they exist to show farmers how they may produce more. They help stabilize markets. And when it comes to "wages", they ask only that the farmer receive a price which will pay his costs and leave a little profit for his work. Today the farmer must face some of the toughest problems in history, higher taxes, higher costs of all kinds, a fast-dwindling labor supply, scarcities of machinery and other commodities. The marketing co-ops are helping him make the difficult and necessary adjustments.

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U.S. Department of Agriculture

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BRITISH COMMENT ON U.S. FfF PROGRAM. The Economist (London, March 7) says: "Interest in the vast American armaments program should not be allowed to obscure the crucial importance of developments on another front --- the American farm.....Conversion is the order of the day in agriculture as well as industry, but the farmer is fortunate in that the changes (in production) now urgently demanded are to a large extent in line with long-term changes in consumption and have been actively encouraged by the Government since the early days of the New Deal. It seems likely that with hard work and careful planning, American agriculture will be able to deliver the goods..... The expansion planned for the next two or three years is being carefully watched to see that it does not bring about any destruction of agricultural resources or entail an increase in equipment and livestock which would prove burdensome after the war. Subject to these considerations, national, state and regional goals have been set as high as possible. The amount of planning called for on the part of the Government and of the individual operator is unprecedented in American agricultural history.... "American food production is a great and essential asset of the United Nations. The drive to expand output is one of the biggest enterprises undertaken by the United States. and it is almost revolutionary in method. The most chaotic and depressed industry of recent years is undergoing a reformation which will have enormous consequences after the war. The perfection of planning technique and machinery, the improvement of methods and equipment, and the shift from staple crops all suggest that in meeting the wartime emergency American agriculture is greatly improving its ability to contribute to the 'economy' of abundance and to hold its own after the war in relation both to industry at home and to agricultural competition abroad."

SCHOOL LUNCH PROGRAM. An editorial in Common Sense, June, says in part: "Consider the significance of even such a small achievement as the school lunch program. Surplus foods need no longer rot because the market cannot absorb them, while children grow up stunted by under-nourishment. The worth of a child is no longer measured by his parents! wealth or poverty. Think what it means that the vast majority of American children now get a high school education, and that physically and mentally they can start the race of life somewhere near the same mark."

BRITAIN TO TAKE JAMAICAN SUGAR. Foreign Commerce Weekly, May 23: The British Imperial Government agreed to take all the sugar produced in Jamaica this year under a lag payment plan. Sugar produced in one month if not shipped by the end of the following month will be paid for to the extent of 95 percent at the end of the second month following production. The 5-percent difference will be paid when the sugar is moved.

WOOD, WIND, AND SAIL — THE COFFEE FLEET. An article by this title in Foreign Commerce Weekly, May 23, says in part: Brazil, greatest coffee producer in the world, has a 1941-42 annual coffee-shipment quota to the United States of 603,600 tons. To bring this coffee to Gulf ports (on which much besides our own breakfast tables depends) would require more than 120 voyages of 5,000-ton freighters. We may not have that many freighters available — for importing coffee. But we can convoy Brazil's coffee to some Caribbean storage base, and then bring it through the Caribbean to a Gulf port on an endless belt of sailing ships — 2,012 voyages of 300-ton sailing ships.

Coffee, however, is just one of many products which we will have to ration, in smaller and smaller quantities, if we do not have an auxiliary inter-American fleet. Brazil, each year, produces 1,641,841 tons of other resources which could be transported from a West Indies base through the Caribbean in sailing ships - 5,476 voyages of 300-ton sailing ships. There is sailing-ship freight, from Brazil alone, to fill more than 7,488

annual voyages, of 300-ton schooners.

The "Coffee Fleet" can be a means of stabilizing the economies of many other Latin American neighbors. Coffee is produced for export by 14 of the Latin American republics, and is the leading commodity of 7 countries: Brazil, Colombia, Costa Rica, Guatemala, Haiti, El Salvador, and Nicaragua. In Central America, alone, coffee comprises one-half the total value of exports. If we allow large surpluses of coffee to accumulate in these countries because of our inability to transport it to the United States—and we may be powerless to prevent such an occurrence if we depend only on steamer space—the economic stability of the Latin American countries which depend largely upon coffee exports will be disrupted. Let us revamp an age-old means of communication and conveyance, reshape it to combat the submarine pirate of the present decade.

FERTILIZER SUPPLIES. Business Week, May 23: To the farmer struggling to raise his sights to the high wartime farm goal this crop year, there was a definite and heart-breaking fertilizer shortage if he failed to find his favorite mixed plant food or top dressing at the local feed store. Statistically he was pretty much wrong. There was and is no fertilizer scarcity, although that hardly cures the fact that in a good many spots, mostly southern farmers had to trust the good earth alone this spring. The hump for the year has now been passed, however, as far as the grower is concerned. But, as the Department of Agriculture has warned through more than one spokesman, farming is going to be tougher in 1943 than in 1942 in many ways.

Of the three basic plant stimulants — nitrogen materials, phosphoric acid materials, and potash — only one is in question, those bearing nitrogen. The phosphoric acid materials, most commonly and most heavily used, are backed by immense domestic supplies. Most phosphate rock comes from Florida and Tennessee; so far western reserves have hardly been tapped. Reserves will last for centuries. Potash today is as safe as phosphate, but when the last war shut off imports potash was not available at any price. After trying a dozen sources, the fertilizer industry in 1916 started to develop potash from brines at Searles Lake and brought that source along with romantic success. Today this lake, together with mining operations in New Mexico, provides a highly adequate supply and reserves for hundreds of years. Measure of the fertilizer stringency this year was the moderate scarcity of sodium nitrate. Half of all sodium nitrate is used as top dressing and since all sodium nitrate constitutes about one—third of all

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fertilizer used, the recorded deficiency of 40% in top dressing worked out to a net shortage of only 12% or so for the country as a whole. The Southeast bore practically all of this shortage. Normally 90% or so of our sodium nitrate is imported from South America. Stocks accumulating now for use next spring are dependent on the sea lanes entirely, since new fixation plants here will be used for munitions.

FEATHERING THE NATION'S NEST. An article by this title, in American Egg and Poultry Review, May, says: Although the commercial value of feathers has in some quarters of the poultry industry apparently been lost sight of. present need for the conservation of raw materials of every sort involves also the necessity of salvaging the feathers as a measure of economic importance to the nation, since these possess not only certain intransic value, but also offer vast undeveloped possibilities as a potential substitute for other materials needed elsowhere in the national defense. For the decoration of women's headdress and clothing as well as the regalia of men in military and fraternal circles, feathers have long filled an important place. Additional uses include the manufacture of novelty writing quills, fancy collapsible fans, quill tooth picks, artificial flowers, tails for arrows, darts and badminton shuttlecocks, handles for small brushes for medical and other uses, artificial birds and fowls for novelty and toy purposes, ornaments for fancy costumes and holiday novelties, feather dusters and other articles of manufacture.

Commercially as well as on the farm the soft downy feathers come into good use for the stuffing of pillows, cushions, furniture, quilts, and mattresses. Establishment of numerous military and civil hospitals, as well as cantonments for soldiers and emergency quarters for civilians over the country, will also create an unprecedented domand for feathers for the making of pillows, cushions and mattresses. Poultry feathers are collected as a byproduct of the poultry packing and poultry canning industries, but may be salvaged on a small but worth-while scale at farms and poultry breeding establishments.

of American Medical Association, May 23: Lord Woolton, Ministry of Food, has given a review of his work in 1941, which shows that we have a nutritional policy of wide scope to keep the nation well in spite of war restrictions. The Americans came forward with generous supplies under the Lend-lease act, and our seamen ensured their safe arrival. By the beginning of the third year of the war stocks were so improved that some of the bulk foods were higher than before the war. As the war has now become a world war, we must be continually prepared for variation in foods and in amounts.

With control of distribution goes control of prices. Taking certain food prices in 1914 (before the previous great war) as 100, the cost rose continuously to a peak of 278 in 1920. At the outbreak of this war we started with a figure of 138. That rose steadily to 170 in June 1940, since which time it has fallen to the present level of 164. The cost of food to the consumer has been stabilized both by price control and by subsidies, which now total \$500,000,000 a year. Bread has been the main subsidized food, but in 1941 eggs and potatoes were subsidized for the first time.

PLAN TO MEET SHORTAGE OF FATS, OILS. Business Week, May 23: This is a sweet-eating and grease-eating nation, and an enormous waster of both materials. The Department of Agriculture and the War Production Board are working on a plan for meeting a prospective fats and oils shortage. Voluntary curtailment is already under way. It has been suggested to industry that fats be saved by every possible means, that bakers cut down on shortenings, and that the housewife save frying pan greases and turn them over to industry through her local butcher. If these and other measures in use fail to effect adequate conservation, rationing is in store. In 30 years the United States has doubled the quantity of vegetable and animal fats and oils consumed annually. In 1941 war suddenly shut off an important segment of our normal supplies.

Least affected mathematically will be the food oils. Butter is our number one fat (fats and oils are the same except for degree of solidity), accounting for two-fifths of all food use. Lard is number two, accounting for three-tenths; cottonseed oil third at a rough one-fifth; soybeans better than one-twentieth and rising fast. Food oils take two-thirds of total consumption. Next customer is soap at about one-fifth. War losses to soap are not insuperable, for imports normally used total only three-tenths of requirements, and not all these have been shut off. Lather stems from one of the fatty acids, lauric, which occurs satisfactorily in only one oil, coconut oil, from the Philippines. Coconut oil heretofore has made onefifth of all soap. A lesser blow will be loss of palm oil. Third consumer of fats and oils is the paint, varnish, and lacquer industry with consumption totaling something less than one-tenth of annual total use. Here loss of imports is acute. One-half of our paint needs have hitherto been supplied by imported oils. Fourth consumer of fats and oils, miscellaneous industrial uses, has been dependent on imports to one-third of total consumption.

By March most fats and oils were selling at their ceiling levels and WPB restrictions were operative on tung oil, coconut, babassu and other palmkernel oils, palm oil, and rape oil. The oils thus restricted show where to look for the effects of important shortages - in soap and practically the whole paint and miscellaneous industrial list. Temporary ceilings have been clamped on oil paints and varnishes. Linseed oil, to encourage flax production, has been exempted from any ceilings. On Jan. 16, 1942, the USDA jumped the whole program of oil-bearing crop goals substantially. Necessarily harvests are not to be counted on in spring, but assuming average yields and the expected success in reaching or passing the goals, the conversion into actual vegetable oil of these farm efforts would be about this: 700 million pounds of peanut oil, 1,400 million pounds of soybean oil (higher than the cottonseed total for the first time in history), and 550 million pounds of linseed oil. Added together these achievements would mean more than 1,500 million pounds of additional oil for 1942-43.

SMASH HIGHWAY BOTTLENECKS. National Provisioner, May 23: A general break-up of highway "bottlenecks" due to widely varying state laws is in prospect, says the National Highway Users! Conference. Legislative action and executive orders have made for several significant state modifications. The Kentucky legislature has increased legal restrictions on gross weight of motor vehicles to 30,000 lbs. from the previous level of 18,000 lbs. Virginia has also liberalized truck laws to permit 18,000 lbs. per axle, with a gross weight of 40,000 lbs.